MARINE REVIEW.

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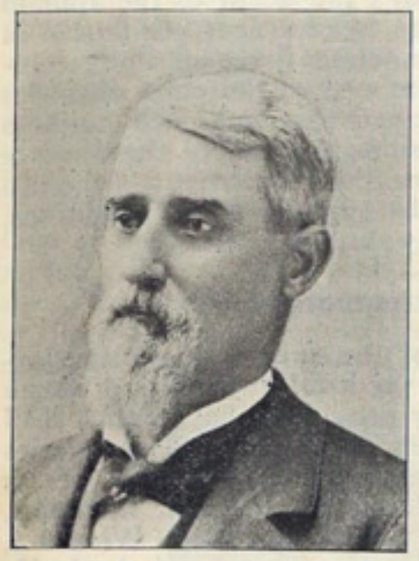
Appointment of Capt. James Stone.

Capt. James Stone of Cleveland was this (Thursday) morning informed from Washington of his appointment to the position of supervising inspector of steam vessels for the ninth district, to succeed Michael J. Galvin of Buffalo. In the instructions which accompanied the bond received by Capt. Stone no mention was made of the date for his assumption of the office, but presumably the change will be made at once. The ninth district extends from the head of Lake Erie east to Burlington, Vt., including Lake Ontario, the St. Lawrence river, Lake Champlain and other waters in that section of the country. There are about twenty-five Canadian vessels under the jurisdiction of the inspector, the district supervision embracing Canadian vessels engaged in the American trade in the waters above mentioned and as far north in Canada as Hudson bay. There are offices of local inspectors in Toledo, Cleveland and Burlington. The salary of the office is about $3,000. Michael J. Galvin, whom Capt. Stone succeeds, was appointed by President Cleveland, succeeding Alexander McMaster, the Harrison appointee. Mr. Galvin's term expires Sept. 1, and he has anticipated the appointment of his successor. Capt. Stone was commodore of the Bradley fleet when he quit sailing, is now a vessel owner and is generally regarded as a well-informed man, admirably suited for the duties and responsibilities of the position. There has been some talk of the headquarters of the district being removed from Buffalo to Cleveland, but Capt. Stone regards this as improbable.



Lake Freight Matters.

The announcement that the Carnegie representatives in Cleveland made a contract this week for the movement of 90,000 tons of ore from Escanaba to Ohio ports at 40 cents, has caused considerable comment among vessel men, who regard the rate as very low, in view of the improvement that has been noted of late in the freight market. The ore is all to be moved within the next five or six weeks, so that vessels engaged on the contract will be free for fall business, but from the vessel man's standpoint the transaction is certainly looked upon as unfortunate at this time, as the rate is just equal to the going rate. The contract thus ties up a large amount of tonnage on a fixed low rate, and it is probable that it will also act against higher rates on coal to Lake Michigan. The Chicago grain movement has proved much heavier than was expected, and it is fortunate that such is the case, as reports of ore shipments for July and August will very probably show a falling off when compared with the first two months of the season. Stock piles have been shipped more extensively than in past seasons and there has been a scarcity of labor throughout the Lake Superior region. If the grain movement holds out during the present month vessel men will have cause for congratulation, as the fall period of more active shipments generally will then be at hand. The movement of coal, both from Buffalo and Ohio ports, has held up so well that Lake Michigan shippers have all been badly in need of vessels for ten days past, and a 30-cent rate to Milwaukee from Ohio ports will very probably be established before the week is out.

All advices from the northwest are to the effect that the new grain crop will be very large. Following is an extract from a recent letter sent out by La Salle & Co. of Duluth: "The grain yield in the northwest, it is now safe to assume, will be the largest in history. The acreage is greater than in 1891, and the crop conditions are exceptionally good. The percentage of wheat to other grains is somewhat in excess of the average. This promising situation is further reinforced by the reports from Manitoba, our agent at Winnipeg advising that the yield in the Canadian northwest is likely to be more bountiful than usual, although, of course, the grain is not yet matured. In the Dakotas, however, wheat is about two weeks earlier than usual." It can not be learned that any charters, excepting those reported some time ago, have been made for the transportation of Duluth wheat. The half dozen or more charters of several weeks back were for loads in September at 2 cents.

Among developments of the past few days in iron ore circles is the announcement that the Oliver Iron Mining Co. (Carnegie interest) has purchased the Zenith mine and has practically concluded the deal that has long been pending for the purchase of the Pioneer mine. Both of these properties are on the Vermillion range in Minnesota. A high grade of ore is produced from these mines. They have not been among the big producers, on account of disadvantages under which the companies operating them have been working, but the output from them will be largely increased by the Oliver company, even during the present year.

James Corrigan of Cleveland has finally been compelled to enter suit for recovery of insurance on the wooden schooner Northwest, sunk by ice in the Straits early last spring. The Northwest was covered by one of last year's policies that contained a clause pertaining to ice, on the strength of which the insurance companies have refused to pay the loss. The companies sued are the Chicago Insurance Co. for $8,600, the Western Assurance Co. for $3,500, the Greenwich Insurance Co. for $1,000, the Union Marine Insurance Co. for $2,000, the Aetna Insurance Co. for $1,500, the British-American Assurance Co. for $3,500, and the Detroit Fire & Marine Insurance Co. for $1,500, making a total of $21,600.

Losses on Wrecked Wooden Ships.

West Bay City, Mich., August 3.—Repairs on the steamer J. H. Outhwaite are well along toward completion, and now it is said that the Edward Smith No. 2, sunk recently in Lake St. Clair and abandoned to the underwriters, but readily raised when wreckers got to work on her, will very probably be brought here also on a bid from James Davidson, who is acting contrary to all the other ship builders and dock yards in submitting a fixed price for the repair of wrecked vessels. The Outhwaite job has, of course, been watched with a great deal of interest, on account of the differences that have existed between underwriters and owners, and the same will be the case if the Smith is brought here as a result of failure to agree upon a settlement. Vessel men who have seen the Outhwaite say that Davidson has tried to make a good job of her. It would seem, however, that the dry dock companies and owners of wooden vessels generally, who are all indirectly interested, will make a strong fight against the apparent effort in the Outhwaite case to follow the rule hereafter of basing the question of constructive total loss on bids for the repair of wrecked vessels. Capt. Daniel McLeod, who is employed by owners of the Outhwaite, has been here constantly noting everything that has been done on her, and it is understood that she has been examined by Supt. Waterson of the Ship Owners' Dry Dock Co. of Cleveland, Edward Gaskin of the Union Dry Dock Co. of Buffalo, William Fitzgerald of Milwaukee, and others, all of whom will probably figure in expert testimony as to the right of the underwriters to repair the vessel and return her to her owners. The questions involved in the wreck of this vessel, as well as that of her consort, the Barr, which was repaired at Detroit, but which has not been accepted by the owners, are of a kind that will prove interesting to all owners of wooden ships. It is probable that it will also lead up later on to another subject discussed considerably of late, that of an effort to force the builders of steel vessels to make proposals on repair jobs. It is understood that the Barr, after her repairs at Detroit, would not be given a class by the Inland Lloyd's Register equal to that which she had before the accident, but the Chicago syndicate will, of course, claim that they have no connection with the Inland Lloyd's.

There are no developments of interest at the Wheeler yard and probably will be none until the two Bessemer ships are completed some two weeks hence. Then will follow an attempt to settle the affairs of the bondholders of Wheeler & Co. and the various creditors who are interested, not only in the ship yard, but also in material and supplies furnished for the Bessemer ships, and for which no payment has been received. These latter items are quite large in the aggregate, as well as the claims against the ship yard. Men holding responsible positions in the ship yard have about made up their minds to seek employment elsewhere, as they are satisfied that there will be nothing for them here after the two vessels now in the yard have departed.

Erie Canal Improvement Report.—A "Whitewash."

Although Governor Black of New York has not yet made public the report of the special commission appointed to investigate the manner in which the $9,000,000 Erie canal improvement appropriation was spent, the purport of its contents are pretty well understood. The report, which is a long one, is understood to charge official incompetency and negligence, although no direct charge of dishonesty is made. Where contracts have been investigated, a specific report of each is made, and, although no attempt will be made to shield anyone, blame will be placed on departments rather than on individual members of any department. It will be set forth that the committee representing commercial organizations which drew the $9,000,000 appropriation bill knew that the amount would not be sufficient. Canal officials are criticized for their action in cutting down contracts in an effort to keep expenses within the appropriation. The report will contain a strong recommendation that the canal improvements be completed, no matter what amount the improvements may honestly cost. Detailed estimates of the cost of completion are submitted. The highest estimate is that of Nelson E. Tubbs, assistant superintendent of public works, whose figures are $25,000,000, which includes the work already accomplished.

Charter Tax Only on Registered Vessels.

It has been understood for about two weeks past that the tax on charters imposed by the war revenue act would not apply to vessels engaged in domestic trade, but there was no official ruling on the subject. Just as the Review goes to press a circular from the secretary of the treasury dealing with this question and addressed to collectors of customs is at hand. The circular states very clearly that the tax imposed by schedule A of the war revenue act on charter parties is applicable only to registered tonnage in the foreign trade (either American or foreign vessels), and does not apply to enrolled or licensed tonnage. The circular also contains in full the opinion of the attorney general.

It is announced from London that Harland & Wolff of Belfast will build a yacht designed by William Fife, Jr., for Sir Tohmas Lipton, the great tea merchant, who has announced his intention to try for the recovery of the international cup. The new vessel will be known as the Shamrock and Sir Thomas hopes to be able to race her next year.

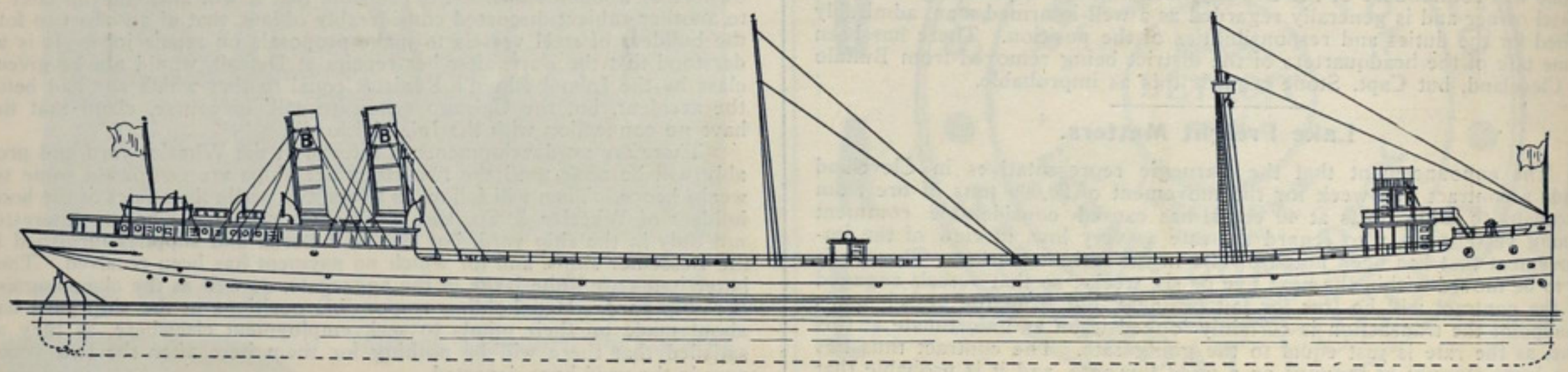
The Roach ship yard, Chester, Pa., has been notified by the Old Dominion Steamship Co. that the two steamers now under construction will be known as the Hamilton and the Jefferson.

An Appeal for Much Needed Relief.

Officials of the war department engaged in engineering work on the great lakes this week made a strong appeal to Secretary Alger of the department for the withdrawal of the militia, which has for some time past been engaged in guard duty at the Sault Ste. Marie canal. After the regulars departed from Fort Brady, a company of militia from Pittsburg was stationed at the canal, and their actions ever since have been almost beyond comprehension. Not only have the captains of vessels not been allowed to come ashore but the superintendent of the canal and his assistants have been excluded. Vehement protests and calm, dispassionate explanations of the requirements of vesselmen have alike failed to induce a glimmering of intelligence in the actions and decisions of the soldiery, and the impositions finally became so great that it was decided to resort to the heroic measures above outlined. There is little doubt that the request coming from the source which it does will receive prompt consideration at the hands of the authorities in Washington.

Largest Freight Steamer on the Lakes.

There was launched at the Wheeler ship yard at West Bay City, last Sunday, the steamer Samuel F. B. Morse, building for the Bessemer Steamship Co., and the largest freight carrying steamer on the great lakes. The launch was characterized by no ceremony of any kind. It had been planned for the afternoon previous, but an unavoidable delay gave opportunity for the grease on the ways to dry so that when it was attempted to launch her the steamer could not be moved, and even the employment of hydraulic jacks proved ineffectual. The Samuel F. B. Morse, which has attracted much attention by reason of her superior size and the expectation that she will break all known cargo records for the lakes when she goes into commission, is 476 feet over all, 456 feet keel, 50 feet beam and 29 feet deep. Probably the most distinctive characteristic of the vessel is the exceptionally heavy construction throughout. Her displacement on a draught of 17 feet will be 10,500 tons. The engines, which were built by Wheeler & Co., are quadruple expansion, with cylinders 26½, 37, 54½ and 89 inches by 42-inch stroke. The four Scotch boil-



BESSEMER STEAMER SAMUEL F. B. MORSE—LARGEST FREIGHTER ON THE LAKES.

ers, which were manufactured by Wickes Bros. of East Saginaw, Mich., are each 13 feet 4 inches in diameter by 11 feet 6 inches long, with a steam pressure of 200 pounds per square inch.

The vessel has fourteen hatches, two smoke stacks and two steel masts. The Morse is fitted with steam steering gear furnished by the Globe Iron Works Co. of Cleveland; steam windlass and deck engines by the American Ship Windlass Co. of Providence, R. I.; pumps by Dean Bros. of Indianapolis, Ind.; and a very complete electric lighting plant by the General Electric Co. of New York. The steamer has the usual accommodations for the crew—all in deck houses. The unforeseen conditions governing the construction of this make it impossible to give an approximate estimate of its cost, although the original estimate was in the neighborhood of $250,000. The credit for designing the Morse was accorded by Manager Bowers of the Bessemer company, in an interview in the last issue of the Review, to Assistant General Manager R. L. Newman of the Globe Iron Works Co. of Cleveland, although Mr. Frank E. Kirby of the Detroit Dry Dock Co. and Mr. Sven Anderson gave owners and builders the benefit of their suggestions. Mr. Robert Logan, naval architect of Cleveland, has superintended the construction of the boat in the interest of the Bessemer company since the Bay City yard passed from the control of Mr. Wheeler.

The Morse is expected to leave about August 24 for Duluth for her first cargo of ore, and the second steel barge for the Bessemer company, which is also nearing completion at West Bay City, will be ready about the same time. The new steamer will be officered as follows: Captain, E. M. Smith of Buffalo; first mate, T. N. Bakewell of Detroit; chief engineer, H. J. Reynolds of Buffalo; first assistant, E. Roach.

An English View of Lake Ship Yards.

An Englishman who has, seemingly, just returned to New York after a tour of the ship yards of the great lakes, writes his impressions to the Mariner of London, under a nom de plume. In recording the impressions of the visitor from across the Atlantic he says: "To the ship yards, however he is attracted by the fine tools and modern appliances with which they are equipped; every advantage is taken that labor-saving tools can give, resulting in furnishing a cheap vessel, but of the strongest character, and in the shortest possible time. The cheapness results from the low prices of steel plating, angles, beams, etc., that can be procured almost at their doors, from the mills, which are their neighbors in fact."

In commenting on the passenger steamers North West and North Land the tourist writes: "These boats are equal to any afloat in model, hull construction, cabin accommodations, and finish. In their machinery and boilers they are up to, if not in advance of, any steamer afloat."

The Erie Canal Situation.

Buffalo, Aug. 3.—The recent argument, outlined in the last issue of the Review, as to whether there is a justification of the reports of the dire condition of the canal business remains a principal topic of conversation. The more radical friends of the canal assert that it is an exaggeration to convey the impression that the canal men are experiencing a season so much less profitable than the lake men. They claim that canal carriers have enjoyed exceptionally good rates, and that while the amount of wheat carried has not been as large as in some years, the movement of other freight has been heavier.

Th debaters on the other side, however, continue their contention that the showing made so far this season is by no means creditable. Moreover, they say, there are several conditions which should have accrued to the benefit of the waterway. One of these was the death of the Buffalo elevator pool, which caused a drop from ⅞ to ⅛ of a cent per bushel in the cost of elevating grain at Buffalo. The canalmen have all along complained that the high charge for elevating was one of the chief obstacles to increased canal business. It was also argued that the canal business this year should have shown an improvement by reason of the absence of any combination among boatmen themselves, the associations of the two previous seasons having been abandoned. In spite of these conditions, they point out, the canal business has steadily declined.

Salaries of Steamboat Inspectors.

A circular just issued from the office of the supervising inspector-general of steam vessels gives the salaries of the local inspectors of steam vessels as compiled in accordance with the law providing that salaries shall be proportionate to the number of steamers inspected. The salaries throughout the United States for the year beginning July 1, 1899, are as follows: For the districts of Evansville, Ind., Louisville, Ky., Memphis, Tenn., Nashville, Tenn., Cincinnati, Ohio; Gallipolis, Ohio, Wheeling, W. Va., Burlington, Vt., Bangor, Me., Galveston, Tex., and Apalachicola, Fla., at the rate of $1,200 per year for each local inspector. For the districts of New Haven, Conn., Savannah, Ga., Charleston, S. C., Dubuque, Iowa, Superior (Marquette, Mich.), Mobile, Ala., Jacksonville, Fla., and Sitka, Alaska, at the rate of $1,500 per year for each local inspector. For the districts of Portland, Ore., St. Louis, Mo., Oswego, N. Y., New London, Conn., Portland, Me., Detroit, Mich., Pittsburg, Pa., and Providence, R. I., at the rate of $1,800 per year for each local inspector. For the districts of Puget Sound (Seattle, Wash.), Albany, N. Y., Grand Haven, Mich., Port Huron, Mich., Milwaukee, Wis., Chicago, Ill., Duluth, Minn., and Norfolk, Va., at the rate of $2,000 per year for each local inspector. For the districts of Philadelphia, Pa., Boston, Mass., Baltimore, Md., Buffalo, N. Y., New Orleans, La., Cleveland, Ohio, and San Francisco, Cal., at the rate of $2,250 per year for each local inspector. For the district of New York N. Y., at the rate of $2,500 per year for each local inspector.

Under the law at present in force the regulation of salaries of local inspectors is accomplished on the following basis: In districts inspecting 100 steamers and less, salary of $1,200 per year each; districts inspecting over 100 and less than 150 steamers, salary of $1,500; districts inspecting 150 and less than 200 steamers, salary of $1,800; districts inspecting 200 and less than 300 steamers, salary of $2,000; districts inspecting 300 and less than 500 steamers, salary of $2,250; districts inspecting 500 steamers and upward, salary of $2,500.

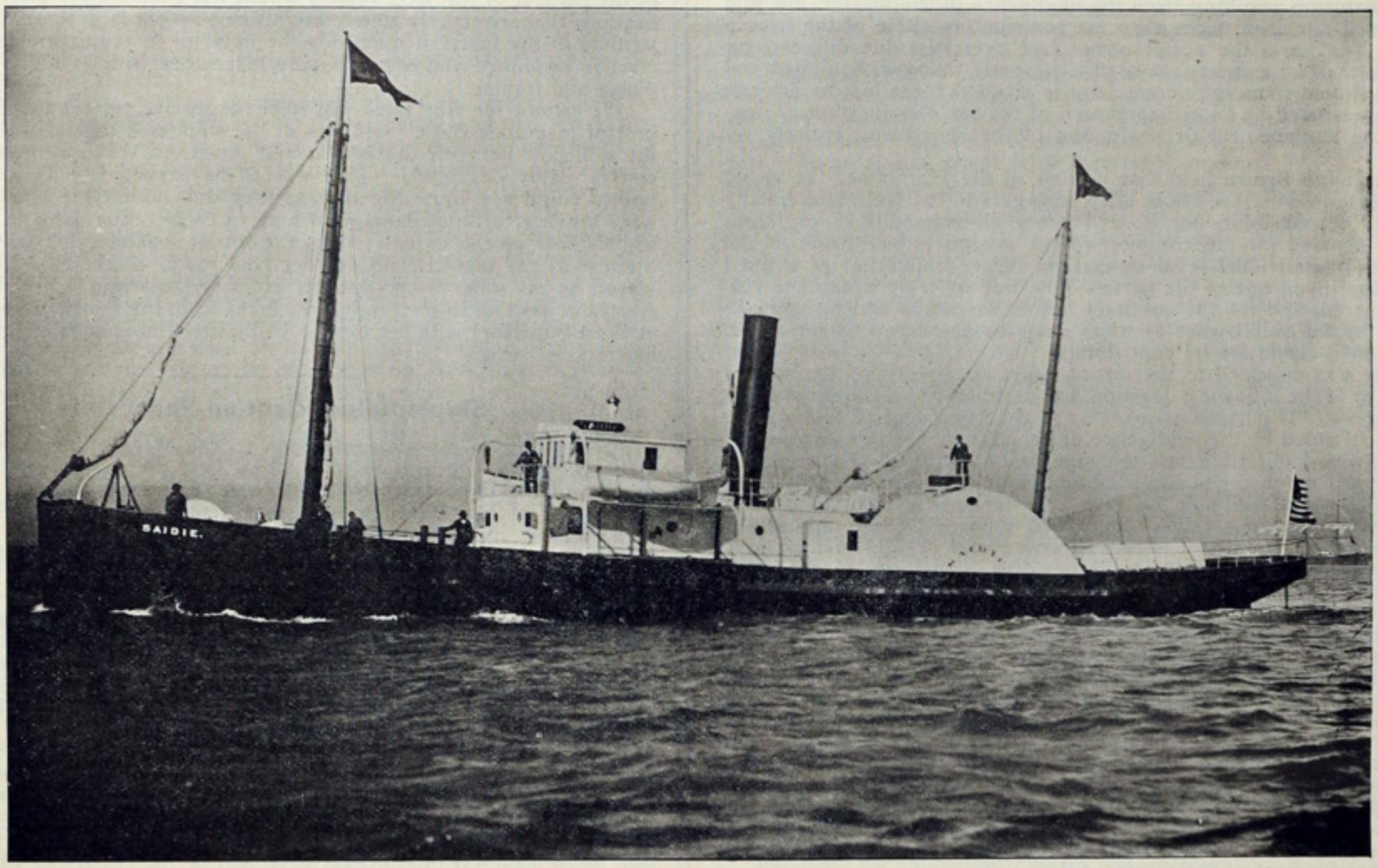
Progress of Work on the St. Lawrence Canals.

There appears to be considerable difficulty in ascertaining when the enlargement of the locks of the St. Lawrence canals to Welland canal size will be completed and open to vessels. A number of lake shipping owners who desire to have their vessels trade to Montreal are decidedly impatient in consequence. A correspondent at Ottawa, who is very close to official sources, states in a letter to the Review that the last official statement relative to the matter was the announcement of Hon. Mr. Blair, minister of railroads and canals, in the house of commons in the spring of 1897, to the effect that the system would be ready for the opening of navigation in the spring of 1899. The correspondent gives it as his opinion, however, that from present appearances there is no chance of the canals being open to a depth of 14 feet any time in 1899, adding that he can get no definite statement from any officials in the department.

A report just made by Collingwood Shcreiber, deputy minister of railways and canals, upon the completion of his inspection of the construction work on the canals is that rapid progress is being made. He anticipates that the channel below Prescott will be ready for 14-foot navigation next spring. On the contract for the Cardinal section of the Gallops canal, 8,000 cubic yards of earth are being taken out daily and the Canadian Construction Co., which has two steam shovels and three dredges at work at Farran's point, will shortly increase the equipment by the addition of two dredges. Mr. Schreiber also reports that everything possible is being done to expedite the construction work on the Soulanges canal.

Rapid Work in Tug Construction.

The Union Iron Works of San Francisco, builders of the Oregon, bid fair to secure an amount of praise second only to that provoked by the remarkable voyage of the battleship around the Horn by their most recent achievement of building and delivering a large ocean-going tug in 120 days. The vessel in question is the side-wheel tug boat Saidie, built for the Alaska Commercial Co., and whose moonlight launch was described in the Review a few weeks ago. The vessel has been especially designed for the requirements of navigation between the mouth of the Yukon river and St. Michaels, in which service she is to be regularly employed. The Saidie is 157 feet 6 inches over all; 150 feet on the water line; 30 feet beam, molded; 8 feet 2 inches depth, molded; with a draught of 3 feet 4 inches, and 300 indicated horse power. The engines are compound, diagonal, 16 inches high pressure cylinder and 32 inches low pressure cylinder, with a stroke of 5 feet. The wheels are 17 feet 6 inches in diameter, and the engines make, full open, twenty-eight revolutions per minute. The tug boat is constructed entirely of steel, including the whole of the house and the house deck. The wheel houses are of the same material. She is fitted with two masts, to meet the requirements of the inspection laws for the voyage between San Francisco and St. Michaels. One of the masts—the after one— will be dispensed with in her regular service. The vessel is intended for towing barges, landing passengers and their effects from the steamers, and such other work as may be necessary in connection with the service of the Alaska Commercial Co. She developed on trial a speed of 11 knots. The Saidie is now on her way from



ALASKAN TUG BOAT SAIDIE, BUILT BY UNION IRON WORKS, SAN FRANCISCO.

San Francisco to St. Michaels. Manager G. W. Dickie of the Union Iron Works, who gave more or less personal attention to the construction of the handsome appearing tugboat, is naturally considerably elated both by the creditable record made by the company and the thorough satisfaction which the vessel gave on her trial trip.

Improved Conditions at Middle Neebish.

Capt. George P. McKay, chairman of the aids to navigation committee of the Lake Carriers' Association, had a conference with Lieut. Col. G. J. Lydecker, United States engineer at Detroit, this week, relative to the difficulties of navigation at that portion of the Middle Neebish channel now undergoing improvement. As explained in the last two issues of the Review, the work of deepening a portion of this channel, now in progress, has reduced the navigable width available for the passage of vessels to 150 feet, and the war department officials have issued rules governing navigation at this point during the continuance of the dredging operations, and providing, among other things that vessels bound in opposite directions shall not meet in Middle Neebish channel anywhere abreast of the dike.

As might have been expected, these rules were the subject of more or less complaint from captains, who have, many of them, written to officers of the Lake Carriers' Association with regard to the matter. These letters were submitted by Capt. McKay to Col. Lydecker. A fair sample of the complaint made was that of Capt. H. Zealand, master of the Minnesota Steamship Co.'s steamer Mariska. He says in part: "Under present conditions it is impossible to carry out the rules and regulations. I have tried several times this season to avoid meeting boats in the dyke, but in most cases I would have done better by continuing up the river in the usual way. A short distance above the junction buoy, the land is so high that down-bound boats are hidden to those below the dyke. There is a very strong current above and through the dyke, so that down-boats with steerageway pass the land faster than up-bound boats working hard. The consequence is that if we are too near to stop below the dyke when a boat appears from behind the high land above, we cannot avoid meeting in the prohibited district. Feeling confident that there will be trouble if the rules are enforced, I protest in advance. The parties responsible for this act have no conception of what a boat with a tow has to contend with or even a single boat without cargo when there is wind. On one occasion I was compelled to pass a tow going in the same direction when we were in the dyke. I was compelled to either pass or put the Mariska ashore, as the tug could little more than hold them against current and wind."

As a result of the representations made by Capt. McKay, Col. Lydecker agreed to do everything in his power to secure a betterment of conditions. It was agreed that men should be stationed night and day at Rains' new dock and at upper north light No. 6, and vessels will only be allowed to pass up the river when in accordance with their signals it is determined that the channel is clear. In order that the authority of these men may not be questioned Col. Lydecker will issue a postscript to rule 4 of the regulations recently issued, which section refers to the authority of the United States engineer in charge and his local assistants to regulate the movements of all vessels in the vicinity to such extent as may be necessary, stipulating that all orders or instructions issued by them must be complied with promptly.

It was further determined at the conference that a patrol boat shall be stationed in Little Mud lake at the entrance to Middle Neebish, and all of the light draught boats will be sent up the easterly or old channel. Col. Lydecker states that there is a depth of more than 14 feet through this channel. Inasmuch as down-bound boats have, of course, the right of way, it will be unnecessary to station a patrol boat at the upper end of the regular channel. Col. Lydecker also arranged to send out tenders for a tug, which will be chartered by the government and the services of which will be confined to assisting vessels through the dyke, or more particularly that portion of it now being deepened.

Capt. McKay, who has been endeavoring for a long time to have several bad spots dredged out of the American channel at Stag island, St. Clair river, was especially elated by Col. Lydecker's announcement to him that the work had been undertaken and will in all probability be completed to a depth of 21 feet inside of six weeks. Heretofore all vessels have been using the Canadian canal, but inasmuch as the American channel is wider, and when the dredging now in progress is completed will be superior in many respects, it is probable that after the completion of the work down-bound boats will take the American and up-bound boats the Canadian channel. Capt. McKay states that as soon as the American channel improvements are completed, he will ask for range lights at the entrance to the channel, although there is a probability, of course, that a year will elapse before they can be secured.

"The rapid increase in the production of pig iron during the last eighteen months," says the Iron Age, "has been due almost entirely to the growth in the demand for raw material in steel manufacture. We made little more foundry and mill iron during the first six months of 1898 than we did in the first or second half of 1897. In other words, we have reached an unprecedented output of pig iron—5,909,703 gross tons in six months—without any help from increased requirements of the founders. If they should become very busy, too, what inducements, in the way of an advance in prices, would it require to start the necessary number of furnaces, now and long since idle? To judge from the rate at which the steel mills are now running, no relief will come from the furnaces producing Bessemer and basic iron."

GENERAL AVERAGE CONTRIBUTION.

UNITED STATES SUPREME COURT PASSES UPON SECTION 3 OF THE HARTER ACT.—A DECISION OF ESPECIAL INTEREST TO VESSEL MEN.

The Review contained brief notice, a short time ago, of an important decision of the United States supreme court relating to the third* section of the act of Feb. 13, 1895, (Harter act). The case was that of Flint, Eddy & Co. against Geo. Christall, et al. The supreme court construes this section of the act somewhat more narrowly than vessel owners expected.

The British steamship Irrawaddy, bound from Trinidad to New York, stranded on the New Jersey coast through the negligent navigation of her master. In releasing the steamer, certain sacrifices were made and expenses incurred in the nature of general average, and claim made against the cargo for its proportion. Action to recover the cargo contribution was brought in the district court for the southern district of New York. The defense of the cargo owner was that the peril which made the sacrifices and expenditure necessary was due to the negligence of the master, and while, as the vessel was seaworthy at the beginning of the voyage, and up to the time of stranding was properly manned, equipped and supplied, the third section of the Harter act relieved the owners from responsibility to the cargo owners for damages resulting from the negligence of the master, it did not permit, in such case, recovery against the cargo. The claim of the vessel owner was that the intent and effect of the Harter act was to entirely remove the question of negligence of the master; that it not only relieved the vessel owner from liability as to payments to cargo owners for damages resulting from the negligence of the master, but that it also relieved him from more than his contributing share of the loss in any event. That is, if the vessel owner had exercised due diligence to have his vessel in all respects seaworthy, properly manned, equipped and supplied, he should stand in reference to the cargo as if the loss or damage had been necessitated by an ordinary peril of the sea, the question of negligence in the management or navigation of the ship being entirely removed.

District Judge Brown held that in view of the Harter act the vessel owner and cargo owner are "both alike strangers to the fault, and equally free from all responsibility for it; and hence all expenditures or losses voluntarily incurred for the common rescue are no longer made in the discharge of an individual legal obligation, or in diminution of a fixed liability resting upon one of the parties only, but are truly a sacrifice voluntarily incurred, and for the common benefit, as much and as truly so when made by the ship owner as when made by the cargo owner alone, and the cargo is liable for its contribution."

The case was appealed to the circuit court of appeals for the second circuit, and by it the following question was certified to the supreme court for instructions: "If a vessel, seaworthy at the beginning of the voyage, is afterward stranded by the negligence of her master, has the ship owner, who has exercised due diligence to make his vessel in all respects seaworthy, properly manned and equipped and supplied, under the provisions of section 3 of the act of Feb. 13, 1895, (Harter act), a right to general average contribution for sacrifices made and suffered by him subsequent to the stranding, in successful efforts to save vessel, freight and cargo?"

The question was answered in the negative, a majority of the court being of opinion that the effect of the Harter act was not so broad, and they would limit the relief given by the statute "to that called for by the language" of the statute. They say that "to declare, as a consequence of this legislation, that the ship owner is not only relieved from liability for the negligence of his servants, but is entitled to share in a general average rendered necessary by that negligence, would be in the nature of a legislative act. The act in question does, undoubtedly, modify the public policy as previously declared by the courts, but if congress had intended to grant the further privilege now contended for, it would have expressed such an intention in unmistakable terms. It is one thing to exonerate the ship and its owner from liability for the negligence of those who manage the vessel; it is another thing to authorize the ship owner to do what he could not do before, namely, share in the general average occasioned by the mismanagement of the master and crew."

"What was the the reasoning on which the courts proceeded in holding that it was against public policy to permit ship owners to contract for exemption from liability for the negligence of their agents? Was it not that such a state of the law would impel the ship owners to exercise care in the selection of those for whose conduct they were to be responsible? This being so, can it be reasonably inferred that congress intended, when relieving ship owners from liability for the misconduct of their agents, to confer upon them the further right to participate in a general average contribution, and that to the detriment of the shippers? Such an interpretation of the statute would tend to relieve ship owners, to some extent at least, from care in the selection of the master and crew; and it would likewise operate to influence the master in deciding, in an emergency, whether he would make a case of general average by sacrificing the vessel, in whole or in part. If he knew that the owner would participate in a contribution occasioned by a loss, he would be the less likely to exert himself and crew to avoid the loss."

Mr. Justice Brown, with whom concurred Mr. Justice McKenna, dissented from the opinion of the majority of the court adopting the reasoning of District Judge Brown. The dissenting opinion characterizes the opinion of the majority of the court as a "narrow and technical construction of the act." It cites a number of foreign cases which "show an almost uniform trend of opinion against the principle laid down by the court in this case." The dissenting opinion then concludes: "I do not contend that the decisions of the English, French and Belgian courts should be recognized by us any further than their course of reasoning commends itself to our sense of justice; but upon questions of maritime law, I think the opinions of the learned and experienced judges of these courts are entitled to something more than respectful consideration. It is for the interest of merchants and ship owners, whose relations and dealings are international in their character, that the same construction should, so far as possible, be placed upon the law maritime by the courts of all maritime nations, and I am compelled to say that I see no reason for creating an exception in this case."

The expression of approval or disapproval from the ruling of the majority of the court cannot, of course, affect the result nor make the minority opinion the law of the case. It would seem, however, that the dissenting judges have more nearly declared the real purpose and intent of the act than the majority of the court. Unfortunately, however, as it seems to us, the majority opinion becomes the law of the land, "narrow and technical" though it be.

*Section 3 of the Harter act provides that where due diligence has been exercised to make the ship seaworthy, and a common danger arises upon the voyage by fault or error in the navigation or management of the ship, neither the vessel nor her owner, agent or charterer shall become or be held responsible for damage or loss resulting therefrom.

Best of Material in Steel Tow Barges.

South Chicago, Ill., Aug. 3.—Work is progressing rapidly on the Minnesota company's barge Maia at the ship yard, and it is expected she will be finished about Sept. 1. Keel blocks are up for the fire boat, to be built for the city of Chicago, and the work of bending frames has begun.

The quality of material that is now going into the best steel vessels of the lakes, and the care that attends everything pertaining to the inspection of the vessels while under construction, is telling in the ship yards when repair jobs are under way. Shortly after the Maida-Australia collision, your correspondent, in going through the ship yard with Robert Curr, inspector for Pickands, Mather & Co., was struck by the pile of damaged plates and shapes that had been taken from the injured vessel. The plates were buckled and twisted in all shapes but there were no breaks in them. It was Carnegie steel. The hard material that went into some of the earliest of the steel vessels would not pass muster under the specifications that are strictly adhered to in the ship yards in these days. Every particle of the material must now be fully up to requirements, and every rivet is examined and tested by the inspectors with as much care as the plates and frames.

"I cannot see why these big steel barges are not regarded among the best of insurance risks," said one of the ship yard officials in referring to the collision between the Maida and Australia. "Both vessels were, of course, badly damaged. That was to be expected. Two big floating bodies could not come together as they did, no matter how slowly they were moving, without damage to both of them. The damage to the Australia's bow was so extensive that the job of repairing her was one of the biggest of the season; and yet her coal cargo might as well have been wheat, as no water went past her collision bulkhead. The fact that the Australia went on to the head of the lakes from the Sault (she was repaired at West Superior) with her bow so badly stove in, is saying a great deal for her class of vessel."

Shipbuilding Plant on Paper Only.

According to a statement made to the Review by Manager W. I. Babcock of the Chicago Ship Building Co., there is in reality no justification of the importance that has been attached by certain newspapers to the visit of Mr. Babcock and other gentlemen interested in steel and ship building interests to Mobile, Ala., and Pensacola, Fla. After commenting on the lack of importance attaching to the trip, Mr. Babcock says: "The trip was more for pleasure than anything else, but because I am a ship builder I suppose the people there thought that a yard was to be built immediately at some southern city, if not two or three. There is really nothing to it at all."

The true circumstances of the case were, it seems, that the Chicagoians simply made the trip upon the invitation of Mr. M. H. Smith, president of the Louisville & Nashville railroad, whose principal object was to have them visit Birmingham, where a large steel plant is to be erected, and the side trips to Pensacola and Mobile were undertaken simply that the visitors might have a personal acquaintance with the country in the vicinity, Mobile being the nearest port to Birmingham. In the party were: M. H. Smith of Louisville, president of the Louisville & Nashville Railroad Co.; John W. Gates of Chicago, president of the Illinois Steel Co.; John Lambert of Chicago, president of the American Steel & Wire Co.; Judge E. H. Gary of Chicago, general attorney of the Illinois Steel Co.; Hon. John R. Tanner, governor of Illinois; Colonel I. L. Ellwood, director and principal stockholder in the American Steel & Wire Co.; C. H. Foote, first vice-president Illinois Steel Co.; W. H. Harper, general engineer Illinois Steel Co.; W. I. Babcock, general manager Chicago Ship Building Co.; Mr. Reeder, secretary to President Smith, and William Edenborn.

New Move by the American Line.

The American Line, in which just now Americans feel an especial pride, announces this week that in view of the many changes made in its fleet by the war demands of the government and the development of the Klondike travel, it has been decided o transfer the boats now running between Philadelphia and Liverpool to its New York and Southampton service, replacing them by five large steamers which it has chartered from the Hamburg-American Packet Co. By this arrangement the Philadelphia and Liverpool service will be increased by an additional steamer, giving Philadelphia an increased service over the present schedule. The steamships Waesland, Belgenland, Rhynland and Pennland, owned by the company, will, on the completion of their present voyages, proceed to Southampton to load for New York, and by that time the chartered craft will leave Liverpool for Philadelphia, the first vessel sailing Aug. 17. The chartered steamships are the Russia, Scotia, Aragonia, Italia and Adria, all modern steam craft and large cargo carriers. All of the vessels have large passenger accommodations. This announcement was, of course, made previous to the report from Washington that the St. Louis and St. Paul will be turned over to the company by the government as soon as they can be refitted, but it is hardly expected that this will result in any change in arrangements for a time at least.

The annual meeting of the Lake Superior Mining Institute, made up of mining engineers and others interested in the iron and copper properties of the Lake Superior region, will open at Ironwood, Mich., on the 17th inst.

A Big Year's Work at West Superior.

West Superior, Aug. 3.—It is stated that the American Steel Barge Co. is now ready to go ahead with the construction of the new dry dock, which has so long been in contemplation. They have been moved to this decision in part by the very satisfactory showing made by the footings of the company's business during the past year. The showing made is all the more remarkable in view of the predictions in some quarters that the company had rather overburdened itself in the extensiveness of the improvements undertaken at the beginning of the season. Of the magnitude of the operations there can be no question, there being included the installation of a gantry crane, designed by the Wellman-Seaver Co. of Cleveland and constructed in the American Steel Barge Co.'s own plant; the installation of a pneumatic and electric light plant; the erection of a new machine shop, and finally the construction of two new vessels and repairs to over thirty vessels. The outlook on March 1, 1898, was such that there would seem to be some doubt as to whether the firm would be able to handle all the work crowding upon it. The two vessels above mentioned were not more than half completed and there were tied up at West Superior and Duluth not less than thirty vessels waiting for repairs, and all of which were to be ready by the opening of navigation. To add to the adverse circumstances ice was unusually heavy at the head of the lakes in the spring. The Constitution was frozen in the dry dock and the ice at various places about the yard measured 30 inches. However, tugs were started to work and in just nine days from March 1, when the conditions above outlined prevailed, the steamer Victory had replaced the Constitution in dry dock and the ice had been cleared away, so that vessels could be dry docked just as rapidly as the repair work would permit. Moreover the entire thirty boats were out on time, and that the repair jobs were of fair size may be imagined when it is stated that an average of fifteen plates had to be removed from each vessel that was docked. It was not necessary, of course, to dock all of the thirty vessels.

Rumors were afloat recently to the effect that Capt. Alexander McDougall contemplated retiring from the active management of the yard, but this is generally regarded as unlikely in view of his complete knowledge of every branch of the work and the value of his influence at the head of the lakes and elsewhere in securing new work. Assistant Manager D. E. Ford, although the season just closing was his first in his present position, is well in touch with everything, and has displayed considerable energy in his management of the yard. The outlook for work, even with new ships out of the way, is still promising. The Superior City is to be docked now and the Gilbert will follow. The firm also has contracts for about $50,000 worth of steel work for local concerns which will assist keeping the shops in operation until the fall activity in ship building sets in.

The whaleback steamer Alexander McDougall in launching on June 25 struck the launch ways and several indentations were made on the port side of her bottom, the calking and rivets being disturbed sufficiently to make the vessel leak some. The necessary repairs were made without difficulty, however, and the McDougall has left on her initial trip. The indentations were remedied without the removal of any plates being necessitated. It was not a serious matter.

August Storms on the Great Lakes.

Peculiarities of August storms and storm tracks are discussed at some length by Alfred J. Henry in the monthly chart just issued by the weather bureau. In part he says:

"The perils of navigation in summer, due to causes connected with the weather, are mainly those of fog and squall winds. The latter almost invariably occur in connection with thunderstorms. As has been stated on previous charts, thunderstorms develop on warm, sultry days, generally with a falling barometer. The approach of a thunderstorm can almost always be foretold by the barometer and the appearance of the sky. The violence of the squall winds also can in a measure be foretold by noting the color of the storm cloud and its elevation above the lake surface. Dark green or olive colored clouds indicate severe squall winds, especially when near the surface of the water or ground. Squall winds on the great lakes generally come from some northerly or westerly quarter, occasionally from the southwest, but very rarely from the south or southeast. If the winds before the approach of a thunderstorm are southwesterly, the squall wind will almost always come from the northwest or west.

"The publication of the results of fog observations thus far during the present season has shown, among other things, that land observations cannot be depended upon to give the frequency of fog in mid-lake. Fog has been reported on Lake Superior on twenty-nine of the sixty-one days between May 16 and July 15 of this year, while on land the number of days with fog was considerably less. Land observations for August show that fog is more frequent on the upper than on the lower lakes, and that it is more frequent at some points on the same lake than at others. Thus, at Escanaba and Grand Haven, on Lake Michigan, more fog is usually observed than at other points."

Case Against Minnesota Ore Railways.

Duluth, Minn., Aug. 3.—The railroad commissioners, who have been taking evidence for some time past in the proceedings against the two ore railways of Minnesota for a reduction in rates, have adjourned until Sept. 6. It is said that witnesses from St. Paul, Chicago, Cleveland and other places will be brought here by the railway officials when the hearing is again resumed, but it may be that the whole question will be dropped with only a pretense of further opposition from the complainants, who are mainly the fee owners of the Pioneer mine. The complainants have not made a strong case, and as it is now quite certain that the Pioneer mine, as well as the Zenith, will soon be acquired by the Oliver Mining Co., it is thought this transfer will have an important bearing on the case against the railways.

Junior Order United American Mechanics' special train excursion to Tiffin—Saturday, Aug. 6, via the Nickel Plate road, leaving Cleveland 7:30 a. m. Annual outing to the home and dedication of cottage No. 2. Excursion rate $1.25. 128, Aug. 8

Around the Lakes.

Congratulations are in order with Maj. M. B. Adams, United States engineer at Detroit, on his recent promotion to a lieutenant colonelcy.

Capt. Thomas Mullen, one of the oldest of lake vessel masters, and who sailed many of the best schooners in the old days, died last week at Ogdensburg.

The weekly statement of the bureau of navigation gives the tonnage of the Bessemer schooner John A. Roebling, building at West Bay City, as 4,693 gross or 4,447 net.

The passenger steamer Unique, believed by her owners to be the fastest steamer that ever floated on the waters of the great lakes, is offered for sale at a sacrifice by C. McElroy, St. Clair, Mich.

In the June supplement to the Inland Lloyd's Register the steamer Presque Isle and the schooner John Fritz are both rated A1, the valuation of the former being given as $235,000 and the latter as $150,000.

Capt. Robbins, superintendent of the eleventh life-saving district, died on board the revenue cutter Fessenden at Bailey's Harbor, Wis., this week. Capt. Robbins in 1856 brought the first ocean vessel to the lakes and afterward sailed on fresh water for many seasons.

Mr. E. Adams, supervising inspector of steamboats of the Dominion of Canada, informs the Review that Jan. 27, 1898, was the date of the passage of the act whereby Canada follows the example of the United States with regard to compelling the inspection of steamers carrying passengers entering from foreign ports. All passenger steamers trading to Canadian ports from the United States are thus subject to inspection.

A lake captain writes to the Review from Hancock complaining of the injustice of the enforcement of the law against freight steamers carrying passengers, by reason of the fact that, as he construes it, masters will not be allowed to have their families accompany them. The correspondent is mistaken in this. There is no desire or intention to urge enforcement of the law as regards this privilege, the complaints made being against the importunations for courtesies of this kind coming from outsiders with no special claim upon the vessel owners.

Mr. J. K. Cobb of 15 Grand River avenue, Detroit, is having constructed a fine high speed naphtha yacht, 50 feet in length by 6 feet beam. The hull is being built by P. H. Studer of Detroit, builder of the famous yachts I. C. U., We C. U. and O. I. C. The engine is a 20-horse power, 6 by 6, with a speed of 600 revolutions per minute, and a 20-inch wheel. The engine is being built by the Wolverine Motor Works of Grand Rapids. Clark Sintz is the designer. Mr. Cobb will act as agent for eastern Michigan and northern Ohio. The yacht will be completed about Sept. 15.

Mr. H. C. Graves, nautical expert, who has been in charge of the branch hydrographic office in Cleveland for some time past, has secured promotion in the government service. About Aug. 15 he will leave Cleveland for Washington to undertake with the coast survey a more responsible position than that which he now holds. Mr. Graves was highly successful in a recent examination for the position which he is to take with the coast survey, and which is in most respects similar to hydrographic office duties. His successor in the Cleveland office has not as yet been appointed.

About Aug. 10 a fixed white lantern light will be established at the outer end of the north pier at the entrance to Waukegan harbor, Lake Michigan. The focal plane of the light will be about 30 feet above mean lake level, and the light will illuminate the entire horizon. Notice is also given that gas-lighted buoys as follows have been established to mark the dredged channel from the southerly end of Green bay into the mouth of the Fox river: Entrance gas buoy, No. 1, painted black, and showing a fixed white light during periods of eight seconds separated by eclipses of six seconds, in 17½ feet of water, on the easterly side of the entrance to the dredged channel from Green bay; elbow gas buoy, No. 12, painted red, and showing a fixed white light, in 14 feet of water, on the westerly bank of the dredged channel, at the turn.

Facilities for unloading coal in the Portage lake district have for a long time past been much behind other districts on Lake Superior, but it would seem that if the new docks of the copper region are completed shortly there will be less delay of vessels there during the fall. The new dock of the Calumet & Hecla company at Lake Linden is entirely of steel and will have a storage capacity of 200,000 tons. The plant was erected by the C. W. Hunt Co. There are twelve of their coal hoists, using the hand-filled buckets, and also five steel tower hoists, fitted with two-ton steam shovels, each operated by a hundred and forty horse power steam engine. There are also on the wharves between fifty and sixty automatic railway tracks. Each of the five shovels carries two tons and will make a round trip in forty-five seconds, so that the amount of coal that can be taken out is evidently very great.

Trade in grain and package freight between Chicago and Parry Sound, or rather Depot Harbor, on Georgian bay, is said to be increasing steadily under the operations of the Canada-Atlantic Railway Co.'s new lake and rail line to the seaboard. An effort is now being made to arrange for passenger service next season between Parry Sound and the head of Lake Superior. Another grain elevator at the new port, to be in readiness for next season, is also planned, and dock extensions are now being made. Capt. Ben. Trip, who was on the steamer Roman, one of the chartered vessels in the Chicago-Georgian bay service, says that there is no less than 22 feet of water anywhere in the new harbor. Two freight sheds for east and west-bound service are 700 by 150 feet and 600 by 150 feet, respectively. These are on the east side of the harbor, where there is 2,000 feet of dock. On the west, or elevator, side of the harbor there is 1,800 feet of dock. Docks are being extended on both sides. The elevator has a capacity of 1,500,000 bushels, and its machinery is capable of unloading a vessel at the rate of 17,000 bushels an hour. The new elevator will be much larger than the one now in service. Masters of vessels who have taken "wild" cargoes to the new port are greatly pleased with treatment accorded them by the Canada-Atlantic officials. They say that the company's chartered boats are often held out of their turn at the elevator and docks, in order that general trade may be encouraged by hurrying work on other vessels.

DEVOTED TO LAKE MARINE AND KINDRED INTERESTS.

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The books of the United States treasury department on June 30, 1897, contained the names of 3,230 vessels, of 1,410,102.60 gross tons register in the lake trade. The number of steam vessels of 1,000 gross tons, and over that amount, on the lakes on June 30, 1897, was 399, and their aggregate gross tonnage 769,366.68; the number of vessels of this class owned in all other parts of the country on the same date was 314, and their tonnage 685,709.07, so that more than half of the best steamships in all the United States are owned on the lakes. The classification of the entire lake fleet on June 30, 1897, was as follows.

	Number.	Gross Tonnage.
Steam vessels	1,775	677,235.45
Sailing vessels and barges	1,094	694,888.87
Canal boats	361	37,978.28
Total	3,230	1,410,102.60

The gross registered tonnage of the vessels built on the lakes during the past five years, according to the reports of the United States commissioner of navigation, is as follows:

Year ending June 30, 1893	175	99,271.24
" " " 1894	106	41,984.61
" " " 1895	93	36,352.70
" " " 1896	117	108,782.38
" " " 1897	120	116,936.98
Total	611	403,327.91

ST. MARY'S FALLS AND SUEZ CANAL TRAFFIC. (From Official Reports of Canal Officers.)

	St. Mary's Falls Canals.			Suez Canal.		
	1897	1896	1895	1897	1896	1895
Number of vessel passages	17,171	18,615	17,956	2,986	3,409	3,434
Tonnage, net registered	17,619,933	17,249,418	16,806,781	7,899,374	8,560,284	8,448,383
Days of navigation	234	232	231	365	365	365

From all accounts obtainable, there would not appear to be on record a greater travesty on justice than the "whitewashing" administered in the case of the so-called investigation of the conduct of the crew of the French liner Bourgogne, as detailed in cablegrams from Paris and Havre, a few days ago. The report given to the press by the French line, and purporting to be that of Capt. Aubert, who was charged by Edward Lockey, minister of marine, with the investigation of the disaster, contains a full vindication of the actions of the crew of the liner. The nearest approach to a condemnation is found in one of the concluding clauses—"The crew of La Bourgogne did all that was humanly possible to organize a rescue. If outrages were committed, they were committed by foreign sailors among the steerage passengers." Weak and vascillating as is this pretense, however, it pales in comparison with the abject humiliation that should be induced by an action recorded in a cablegram from Havre. Here it is stated, the public prosecutor ordered the release of the six Austrian sailors of the Bourgogne and their prosecution on the charges of cruelty and brutality dropped for lack of evidence, thus proving conclusively that the above declaration attributed to Capt. Aubert was simply a makeshift and that there is not the slightest evidence to indicate that the French line desires to prosecute anybody for the outrage. The supreme disgrace, however, to which the public prosecutor at Havre has demeaned himself, if this seemingly incomprehensible cablegram is to be believed, is in actually recommending the other sailors on La Bourgogne for rewards as a recognition of their courage. Meanwhile, damaging reports come from Halifax relative to the disclosures made before Capt. W. H. Smith, R. N. R., investigating as wreck commissioner of Canada the conduct of the Cromartyshire, with which the Bourgogne came in collision, and all the circumstances bearing on the actions of the British vessel. Capt. Henderson of the Britisher, in his testimony before the court, openly charged many of the survivors of the Bourgogne crew, who were taken on board his vessel, with refusing to volunteer to save their fellows who had not yet been rescued. Their excuse was that they were too tired to help in this work, in the accomplishment of which the Cromartyshire sailors were risking their lives. They even grumbled at the food that was given them, demanding luxuries, and almost threatened, according to Capt. Henderson, to break into his cabin and help themselves. The British officer in his testimony in open court charged them, too, not only with refusing to take any part in the volunteer rescue work, but when they found that the danger of the Cromartyshire following La Bourgogne to the bottom was not immediate, they refused to further assist in clearing away the wreckage. The seriousness of this conduct was perfectly apparent, moreover, the ship's foremast having fallen to the deck, an immense hole having been stove in her bows and she floating, indeed, on her collision bulkhead.

Another welcome evidence of the spirit of energy and aggression with which American shipping interests are rapidly becoming imbued, is found in the unanimity with which the men interested have arisen in protest at rumor of the possibility of the administration making a ruling to the effect that until congress declares that the domestic navigation laws of the United States are applicable to the trade between the Hawaiian islands and the other parts of the United States, that trade will be open to the free competition of foreign and American shipping. This is right. To the system of protection to our coasting trade may be attributed the fact that our mercantile marine has not been almost totally obliterated in a long period of depression, and now to abandon the policy, just when opportunity is presented for it to prove particularly beneficial, would certainly seem an inexcusable lack of judgment. Moreover, precedent against such a proceeding is not lacking, for the carrying trade between the United States and Alaska has been rigidly restricted to American vessels. There is a strong possibility that the rumor rehearsed above is without foundation, although even should it prove authentic, there is little doubt that the storm of protest raised will result in a hasty resort to the only remedial measure acceptable—the rigid enforcement of the law in its right interpretation.

Mr. Goshen, first lord of the British admiralty, would appear to be right in his contention that if the petition for the enrollment of colonial seamen in the national reserves is to be granted, the colonies must share the expense of enrolling their own organizations. This would appear to be a very mild demand. To many persons it has seemed strange that Great Britain has not ere this called upon the colonies to help maintain the navy of which they are certainly great beneficiaries. There is a lesson, too, in this extension of the naval reserve, although its application to the United States will necessarily depend largely upon the showing made by our naval reserves in the present war. Great Britain has already 27,000 men in the naval reserve, and more are available. The men are required to serve at the batteries for twenty-eight days and then go to sea on board a warship for six months. If the verdict of our navy department is that our naval reserve is worth fostering at all, a training such as is given the Britishers ought to prove infinitely superior to the present slip-shod method.

Members of the Conservative party in Canada are pretty nearly in a mood for open rejoicing over the notification by the government to Mr. Peterson of the firm of Peterson, Tait & Co., Newcastle, England, that, having failed to secure the requisite capital for the fulfillment of their fast Atlantic steamship contract with the Dominion government, the agreement will be considered annulled and the deposit of $50,000 made by Peterson, Tait & Co. forfeited. The Conservative ministry, which was retired two years ago, had just about concluded negotiations with the Allans to assume the contract, but these plans were thrown over by Sir Wilfrid Laurier, who secured a more favorable proposition from Mr. Peterson. Now the Conservatives are inclined to be joyful, apparently blind to the fact that the two years' lost time is from the standpoint of the welfare of Canada a heavy penalty to pay for revenge. The real blame would seem to lie at the door of those persons in England who without excuse belittled the Peterson enterprise and made it impossible to interest capital.

Good for Capt. Whiting of the monitor Monadnock! If cable reports from Honolulu are to be believed, he taught Gen. Merritt a well-deserved lesson in etiquette. The report from the Hawaiian capital is to the effect that the Monadnock was delayed for repairs and work was being pushed day and night when Gen. Merritt arrived on the Newport, and, if the cable is to be believed, in effect ordered Capt. Whiting to proceed at once on his voyage to Manila. The naval officer seems to have had a nice conception of the limitations of authority, and he not only declined to proceed until the repairs were completed, but also conveyed to Gen. Merritt a delicate intimation of the fact that he would not hold himself responsible to an army officer.

A recent incident at Manila is commented upon by a writer in the Maritime Register of New York, as follows: "It is sometimes astonishing how little even wide-awake journals know about naval affairs. Nearly every American newspaper took in bitter earnest the report of an interview between the German naval commander and the English commander in Manila and commented upon it seriously. The report stated that the English commander, being asked by the German admiral what his action would be if the German fleet should resist Admiral Dewey's fleet, replied: 'Nobody but Admiral Dewey and myself know.' What humbug!"

On her last eastward voyage, the North German Lloyd Co.'s fleet ocean liner, the Kaiser Wilhelm der Grosse, again broke all transatlantic speed records, making her trip from New York to Southampton in 5 days, 19 hours and 35 minutes. The vessel covered a course of 3,146 knots at an average hourly speed of 22.54 knots. The best previous average hourly speed made across the Atlantic was 22.35 knots, accomplished last November by the Kaiser Wilhelm herself. On that occasion the trip was made over a shorter course than the one she took on her last voyage.

The British steamer Venus, loaded with 11,230 steel rails, 6,799 bundles of plates and 4,606 boxes of bolts and spikes, sailed last week from Sparrow's Point, Md., for Vladivostock, Russia, making the sixth cargo sent to that port with parts of the order for 40,000 tons of material for the trans-Siberian railway given to the Maryland Steel Co. The British steamers Strath Nevis and Maroa, which have been chartered by the company, will ship the remainder of the order at an early date.

If ever a man did hard, unremitting missionary work it was Mr. George Y. Wisner, a member of the United States Board of Engineers on Deep Waterways, who at the Detroit convention of the American Society of Civil Engineers last week labored unceasingly to convince the members by argument and personal observation of the practicability of the project for regulating lake levels which had been assailed in a paper read before the convention by Capt. Chittenden.

The White Star Steamship Co. is having bilge keels fixed on the twin-screw steamer Teutonic. Some time ago it fitted its cargo steamers with such preventive against rolling, and the application of side keels to one of its crack passenger boats serves to illustrate the popularity which these aids to comfort have attained.

The Cunard Steamship Co.'s fleet now totals 119,215 tons, representing twenty-four steamships, ranging from 12,950 tons to 735 tons, three tenders and four barges. These are given an aggregate book value, after allowing for the £2,068,260 written off up to date, of £1,596,320.

One of the late rulings from the treasury department regarding the war revenue act is to the effect that there is no tax on the bill of sale of a vessel.

American Push in the Ship Building Industry.

Some persons doubtless found cause for disappointment in the announcement, last week, that President Irving M. Scott of the Union Iron Works Co., San Francisco, was not summoned to Russia with a view to consultation regarding the construction of war vessels, but went of his own accord. It would seem, however, that when looked at from another standpoint the real circumstances were by far the more acceptable ones, for they indicate that the distinctive American energy, which has won foreign markets for us in so many other lines, is now to be made applicable in the case of the ship building industry. Nobody at all conversant with the subject doubts the result. It is only necessary that this American "push" should be backed by persistency and quality in the goods for which a market is sought. The former is in a great measure an inherent trait, and it is hardly possible that there could be found a skeptic to question the ability of a firm that could build an Oregon to meet any exaction of a European court. Indeed it was only last week that the Norwegian naval attache, sent by his government to observe the Santiago campaign, declared that he did not think any European firm could build such a ship as the Oregon, and he goes home to recommend that his government send to the United States the contracts for the two war vessels which it proposes to build.

But to get back to President Scott's trip. His brother, Mr. Henry M. Scott, has stated the case very concisely. He says: "We saw some time since that the Cramps had secured contracts from the Russian government, and we decided that if there were any more ships to be built we would be prepared to bid upon them. It was in keeping with this determination that Mr. Scott went abroad." Mr. Henry Scott does not incline to the belief that his brother has been successful in closing any contracts, as the cablegrams received from him contain no such intimation. The circumstances outlined above also indicate the existence of a healthy rivalry among American ship builders that cannot fail to prove beneficial.

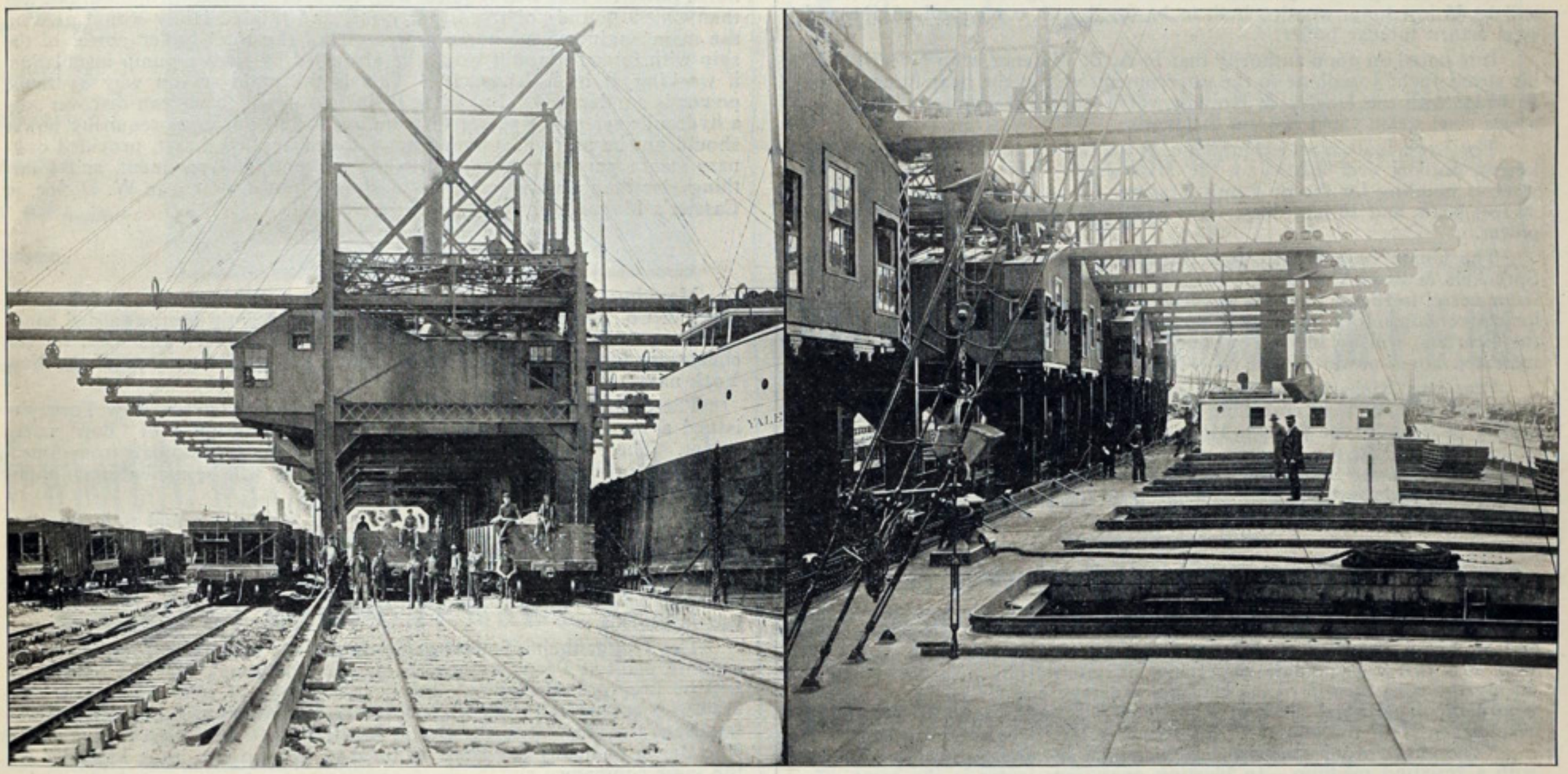
Figures on Canal Shipments.

Discussion of the question as to whether Erie canal traffic shows a falling off in volume, which has recently been revived, is by no means a new one, but it is being argued with all the vigor of a new issue. An interesting light on the matter, which by the way is also referred to in another column, is found in a table just issued showing the movement of flour and grain by canal from Buffalo, from the opening of navigation to August 1 during the past three years. The interesting feature of the table is found in the falling off in wheat shipments and in the great disparity between the aggregate shipments for 1896 and for the present year. The table is as follows:

Canal opened.	1898. May 22.	1897. May 8.	1896. May 1.
Flour, barrels	.....	13,272	17,451
Wheat, bushels	427,180	2,113,832	6,491,943
Corn, bushels	3,973,828	3,690,930	1,382,217
Oats, bushels	3,477,573	750,437	7,184,774
Barley, bushels	1,168,935	1,366,446	839,364
Rye, bushels	236,732	1,407,632	551,749
Total, bushels	9,284,248	9,329,277	16,450,047

Harbor Improvements at Manila.

The present status of the harbor improvements which have been in progress at Manila in the Philippine islands for several years past is the subject of some interesting data just compiled by Chief Austin of the bureau of statistics, treasury department. The work when completed will be a great boon to the larger type of vessels which at present have to ride outside in the roadstead or bay, two or three miles from Manila. Only steamers drawing little water and small craft can enter the River Pasig. Those running between Hongkong and Manila as a rule discharge the bulk of their cargoes in lighters in the bay and then enter the river to continue discharging the remainder. The same plan is followed in loading the steamers. Obviously loading and unloading is prevented during many days during the typhoon season. When danger signals of a gale impending are hoisted the vessels are obliged to run across the bay to Cavite, which is three miles distant, and where there is a naval and marine dock yard as well as shelter. When the improvements are completed, and there is reason to believe they will be hurried should the United States retain possession of the islands, there will be an abundance of room for both men-of-war and merchant vessels. Just previous to the outbreak of the war, the Spanish government had ordered from Glasgow a large floating dock, and British engineers had already arrived to place the dock in position at Subic, some twelve hours' steam from the port of Manila. It was the intention to provide means for the docking of the vessels of the Spanish China squadron at Subic, instead of leaving them to the necessity of going to Hongkong, where they were formerly often obliged to wait for weeks their turn to enter the dry docks. Now, of course, the Spanish China squadron is hardly in need of a dry dock at Subic or elsewhere, but there is no reason why it will not prove very acceptable for use by the United States Pacific squadron.



(From the 1898 Blue Book of American Shipping.)

End Views of the Rapid Ore Unloading Plant at Conneaut Harbor, Ohio. Built by McMyler Mfg. Co., Cleveland.

Ship Building Material in German Yards.

Late advices from Germany are to the effect that a strong effort is being made to induce German ship builders to cease the purchase of materials abroad. Heretofore the majority of the material used in the German yards has been imported from Great Britain, principally by reason of the low price at which it was possible to secure it. Such material was made duty free some time ago, in order to promote the ship building industry, and now even the most radical opponents of the importation of material fear to seek the reinstatement of the tariff for fear that while discouraging the purchase of material abroad it would also handicap the German ship yards in competition with those abroad. A union of German sheet iron rolling mills has been formed, and according to reports has closed contracts to furnish the yards with a considerable quantity of material at a sacrifice, in order to oust British competition. Moreover, the proprietors of the German rolling mills have made arrangements for the supply of ships' plates of guaranteed quality, promptly. It is claimed, too, that in view of this guarantee the ship builders have agreed to in future waive the difference in price between English and German plates. The English manufacturers are manifestly more or less worried over the situation, although they profess to believe that the small capacity of German works and the freight rate will prevent the consummation of the scheme in the highest degree.

A one fare for the round trip rate is in effect to Linwood park, Vermillion, O., via the Nickel Plate road, Aug. 2 to 22, account religious meetings. 140, Aug. 20

The Chicago Pneumatic Tool Co. received orders in one mail of recent date for seventy-eight pneumatic tools (four of which are to go to the Imperial Chinese railway) covering a variety of tools as follows: Forty-four pneumatic hammers, eight pneumatic holders-on, six riveting machines, four Boyer piston air drills, twelve breast drills for wood boring, two air hoists, two flue welders.

Operations of the Ship Builders.

John L. Mills of Cooper's Point, Camden, N. J., is having constructed at his ship yard a 70-foot dredge for his own use.

Russell Bros. of Long Island City are building a 50-foot tug for the Newtown Creek Towing Co. The boiler will be constructed by Heipershausen Bros.

The Queen Anne Railroad Co. of Baltimore, Md., has had prepared specifications for a new steamer, and ship builders will soon be asked for bids.

The Brockville Navigation Co. of Brockville, Ont., will in all probability order a new steamer this autumn to replace the Brockville on the Union Park route.

Specifications are in preparation by the Baker-Whiteley Coal Co. of Baltimore for a sea-going steel tug, to replace the powerful Britannia, recently sold to the government.

R. C. Brittain of Saugatuck, Mich., has launched a steamer 100 feet over all, 17 feet beam and 7½ feet draught, to be used in the fruit trade between Saugatuck and Milwaukee.

Arthur Sewall & Co. have launched the steel schooner Erskine A. Phelps at their yard at Bath, Me. The Phelps is 312 feet long, 44 feet beam and 25 feet deep. She will have a carrying capacity of 4,600 tons.

James Rees, Sons & Co. of Pittsburg have secured the contract for a gunboat for service on the Magdalene river. The boat, which will be 146 feet long, 24 feet beam, 4 feet deep and capable of a speed of 15 miles per hour, will be shipped to Barranquilla in sections.

The R. M. Spedden Co. of Baltimore has secured an order from the Baltimore Storage & Lighterage Co. for a new tug for harbor use. She will be 75 feet long, wooden hull, to be fitted with compound engine and steel return tubular boiler.

It is stated on good authority that P. A. B. Widener, who recently sold his steam yacht Josephine to the government, will in the near future place an order with the Harlan & Hollingsworth Co. of Wilmington, Del., for a new steel steam yacht 250 feet in length.

The Iowa Iron Works, Dubuque, Iowa, has successfully launched the largest tugboat ever floated on the Mississippi. The vessel, which is of steel, is building for the St. Louis Transfer Co., and is 125 feet in length, 20 feet beam and 10 feet deep. She has compound engines of 800 horse power.

The Union Iron Works, San Francisco, has just secured from J. D. Spreckels & Bros. Co. of San Francisco an order for a steel towboat, a sister vessel to the Active, which the firm recently sold to the government for conversion into a gunboat. The new vessel, which will be christened the Fearless, will be 100 feet in length, 22.5 feet in breadth, and with an indicated horse power of 600.

President Richard Hammond of the Lake Erie Engineering Works of Buffalo is more than corralling contracts. His latest is for two marine boilers of Scotch type for the Merrill & Chapman Derrick & Wrecking Co. of New York, the concern which has the contract with the United States government to recover the Spanish warships at Santiago. The boilers will be 12 feet 6 inches in length and of the same diameter, with a working pressure of 250 pounds.

Submergence of High Explosives.

Mr. Louis Y. Schermerhorn, who was some time ago engaged in the removal of rocky reefs which obstructed the harbors on Lakes Superior and Michigan, in which work large quantities of dynamite were used, and who also had considerable experience in connection with the blasting during the construction of the Chicago drainage canal, has just presented before the Engineers' Club of Philadelphia a paper on "Modern High Explosives." In the course of his remarks Mr. Schermerhorn said:

"The effect of all explosives is increased by their being surrounded with a resisting medium. In blasting operations water is the most efficient tamping that can be used. Experience indicates that there is no gain in efficiency by a submergence of the high explosive to a depth greater than 6 feet. A peculiar interest adheres at the present time to the outside action upon the hulls of vessels of high explosives submerged in the water. Some years ago the English government instituted a series of experiments to determine the greatest distance at which destructive effect could be produced by the discharge of guncotton incased in torpedoes. It was found that at a horizontal distance of 50 feet, with a submergence of 40 feet, 500 pounds of compressed guncotton could be exploded without serious injury to the construction of an iron vessel. At a horizontal distance of 30 feet, and the previous submergence, the iron hull was so crippled that the vessel was in a sinking condition. From this it would appear that submarine mines of limited capacity must be exploded quite near a vessel to produce destructive effect."

Daily newspapers in all lake cities are supplied with reports of vessel passages and with marine news of all kinds by the Lake Marine News Association of Chicago. This association maintains vessel reporting agencies at various points around the lakes, serving vessel owners and shipping concerns direct with information pertaining to the conduct of their business. A notice like the following, telegraphed throughout the country recently, is therefore especially appreciated on ac ount of the source from which it comes: "The Blue Book of American Shipping, issued by the Marine Review at Cleveland, is far ahead of any similar publication ever issued in the United States. One hundred pages are given over to illustrations, and portraits of 130 lake marine business men and pictures of over sixty vessels are given. The blue book contains 575 pages in all, and is a valuable collection of statistics of the entire marine business of the country."

Bement, Miles & Co. of Philadelphia announce that Mr. Chas. E. Billin's connection with the firm as representative in Chicago terminated Aug. 1. All communications addressed to Bement, Miles & Co., 1534 Marquette building, Chicago, will receive prompt attention.

Hydraulic Power on War Ships.

It has generally been allowed even by those who are most strongly in favor of its adoption that, owing to the conditions which govern the operation of most auxiliaries on board warships, economy must be sacrificed when a hydraulic system is adopted. Hydraulic motors for any of the varied purposes requiring power on warships must be designed large enough to meet the maximum requirements of the service, and if these motors are of the piston or plunger type, the regular form at present in use, the maximum amount of power will always be used, although the minimum work only is required.

If, instead of using a motor having cylinders with moving pistons or rams, utilizing the pressure to obtain power, and measuring out a given quantity of water for each movement, irrespective of the work to be done, the pressure water was applied to a properly designed wheel of the tangential type, an efficiency averaging about 70 per cent. could be obtained with a great variation in the load, and thus one source of waste with this system would be avoided.

The direct ram would be still retained for certain purposes where precision of movement is of the first importance, such as in steering gears and gun-training movements.

The mania for direct-acting steam pumps to generate power for such an installation is the most fatal obstacle to be encountered in any effort to reach reasonable economy in a hydraulic system of power transmission on board our warships. In some of the battleships now building it is proposed to install, for the generation of hydraulic power, say, six duplex hydraulic pumps of 400 gallons capacity each per minute, at 600 pounds pressure per square inch. This requires twelve steam cylinders, 22 inches in diameter, and, say, 24 inches stroke, being with pump friction about 950 horse power. This will require, with the type of pump proposed, not less than 95,000 pounds of steam per hour, and this certainly would give on the main engines 5,000 horse power. Half the total boiler power of the ship with forced draught would be absorbed by such a pump installation, if working at its full capacity. This is the main reason why hydraulic power is condemned. But there is no reason which we can discover why a hydraulic system of power distribution for all purposes requiring power should not be more economical than steam applied direct, provided ordinary steam pumps are avoided in the generating department, and something else than a water meter is used as a motor.—George W. Dickie, in Cassier's Magazine.

Trade Notes.

Manning, Maxwell & Moore, the Pratt & Whitney Co., and Bement, Miles & Co., are among the firms who have recently been awarded handsome contracts by the navy department for machinery and tools for the equipment of several new departments in the machine shops of the New York navy yard.

The Consolidated Safety Valve Co., 111 Liberty street, New York, has issued a very handsome illustrated catalogue descriptive of "Pop" safety valves. There is much data of interest and many testimonials from America's most prominent ship builders. The book will be mailed upon application.

A three-story brick building, 40 by 90 feet in size and to be devoted to pencil and graphite resistance departments, is being erected by the Joseph Dixon Crucible Co. at Jersey City, N. J. The Dixon company has over 700 men on its pay rolls, 600 being employed in Jersey City, sixty in the graphite mines at Ticonderoga, N. Y., and forty in the cedar forests in Florida.

The Guggenheim Smelting Co. is making extensive additions to its refining plant at Perth Amboy, N. J. The buildings they are putting up will be fireproof throughout, being constructed of steel framework covered with corrugated iron. The contract for furnishing and erecting these buildings has been let to the Berlin Iron Bridge Co. of East Berlin, Conn. The Berlin company has lately shipped to Mexico two large buildings for the same company.

A very complete catalogue has just been issued by the Hayden & Derby Mgf. Co. of New York, manufacturers of Metropolitan injectors. The catalogue contains several new features. In the ratings of injectors, for instance, not only is the horse power given on the basis of seven and one-half gallons of water per horse power per hour, which has always been the standard of figuring the horse power of injectors, but is also given on a basis of 30 pounds evaporation of water per horse power per hour. Injectors with flanged as well as screwed connections are shown for the first time, and the various forms of injectors manufactured by the firm are also shown in dimension diagrams, which enables the piping to be laid out from the data in this catalogue.

An abstract of a lecture on "Mechanical Draft for Steam Boilers," delivered before the Sibley College, Cornell University, by Walter B. Snow of the engineering staff of the B. F. Sturtevant Co., Boston, has been reproduced in pamphlet form. In a concluding paragraph the author presents the case thus: "Briefly summarized, mechanical draft is capable of reducing the avoidable losses, of decreasing the first cost of steam generating plant, and of reducing the fuel expense. In addition, it presents certain marked conveniences in the matter of installation and operation. In these days when every step in the process of steam generation and utilization is being scrutinized, in the attempt to reduce the cost by even a single per cent., the opportunity presented by the employment of mechanical draft cannot be and is not overlooked. The economical necessity was not so imperative when Rankine and Clark pointed to its marked advantages. And the future was but dimly discerned when, only fifteen years ago, Seaton referred to the chimney as a rough and ready, but exceedingly wasteful way of inducing the air to flow into furnaces with sufficient velocity to cause the fuel to burn, and prophesied that it would some day undoubtedly be superseded by a more scientific and economical apparatus."

Religious meetings will be in session at Linwood park, Vermillion, O., from Aug. 2 to 22. The Nickel Plate road has authorized a rate of one fare for the round trip for this occasion. 141, Aug. 20

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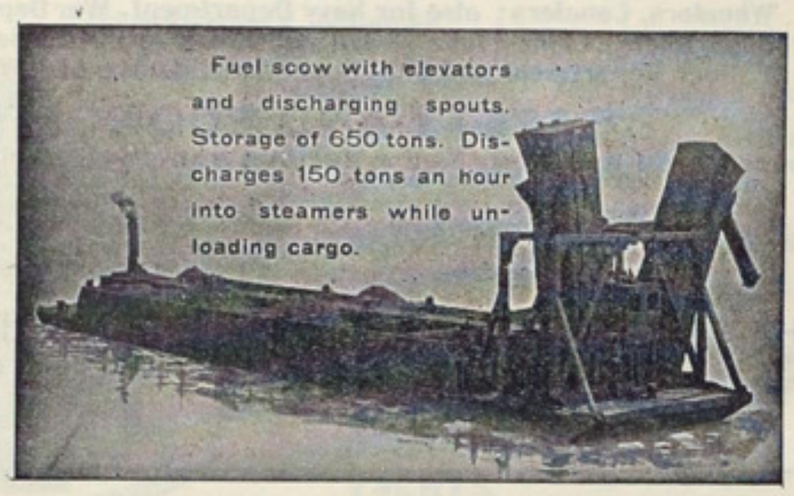
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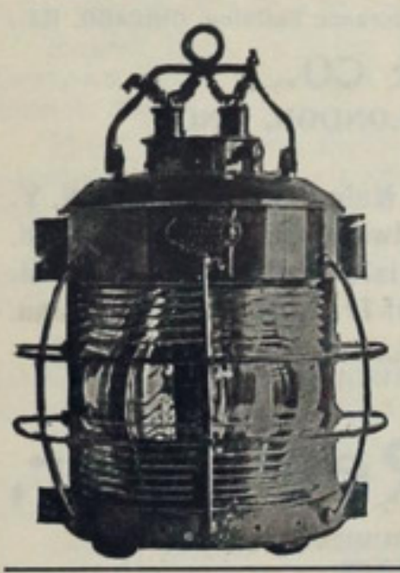

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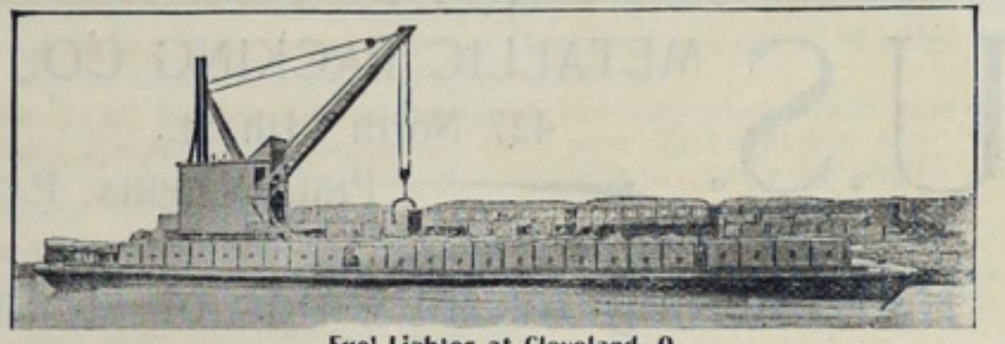

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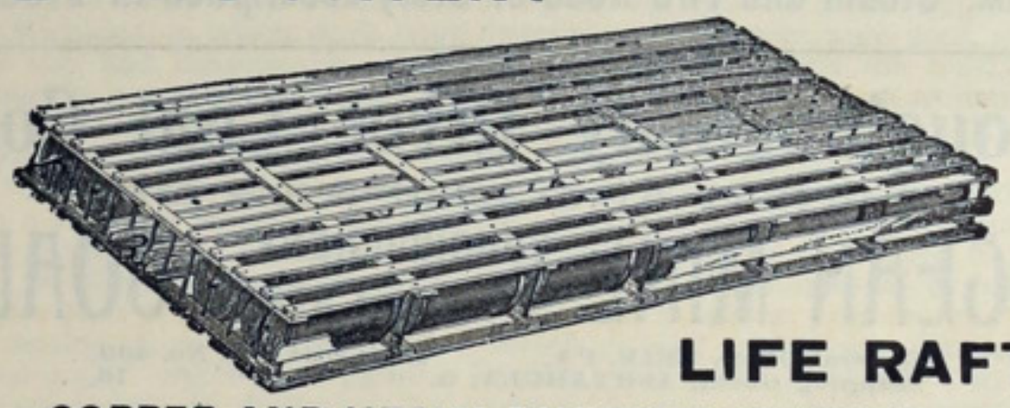

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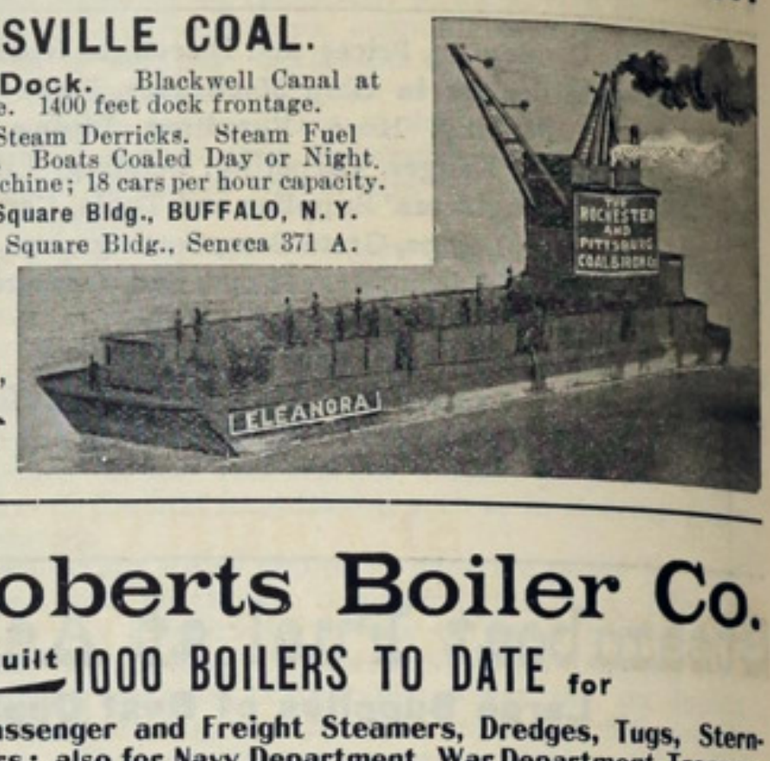

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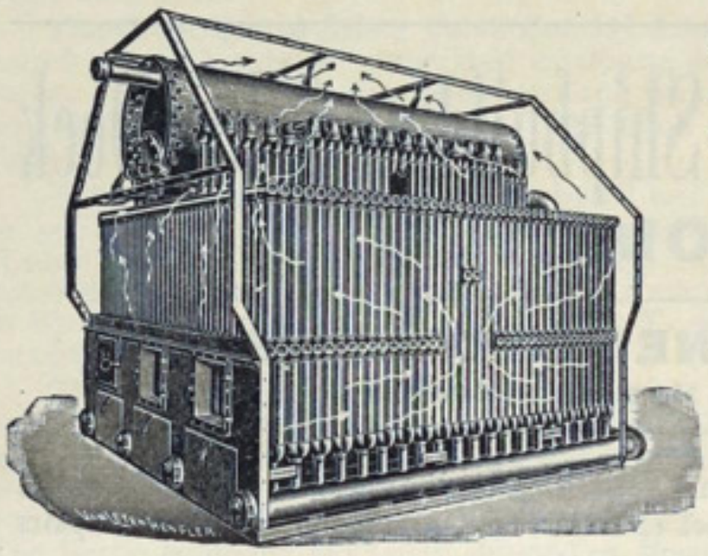

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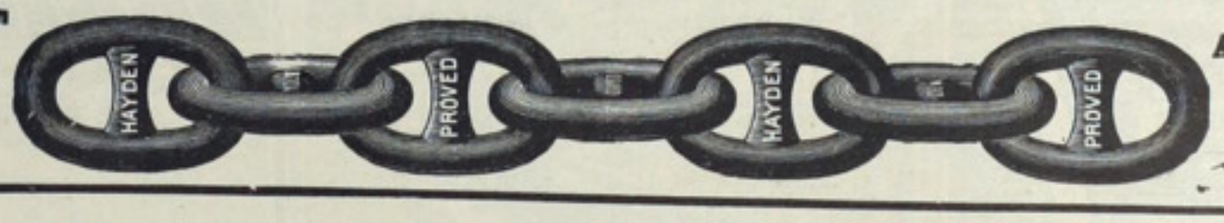

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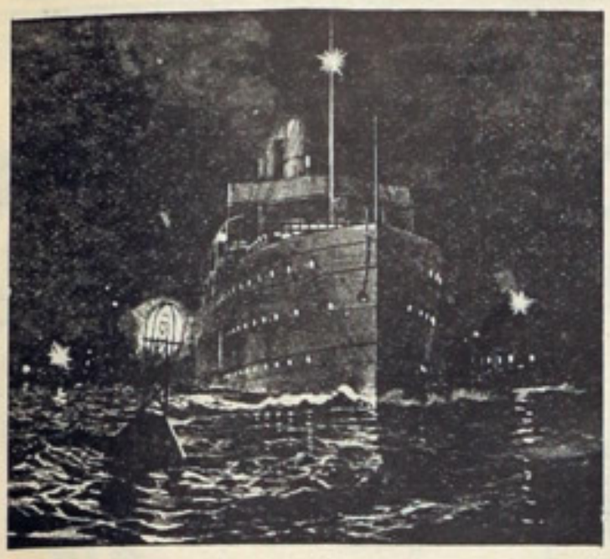

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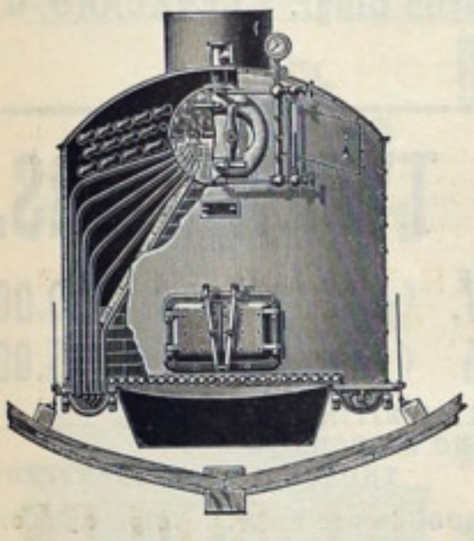

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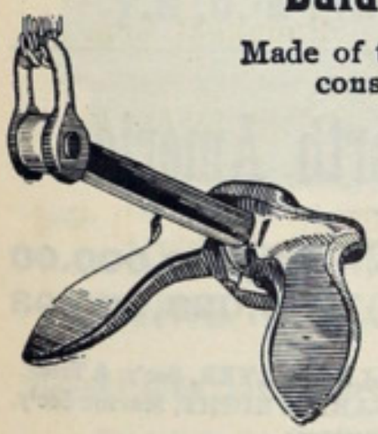

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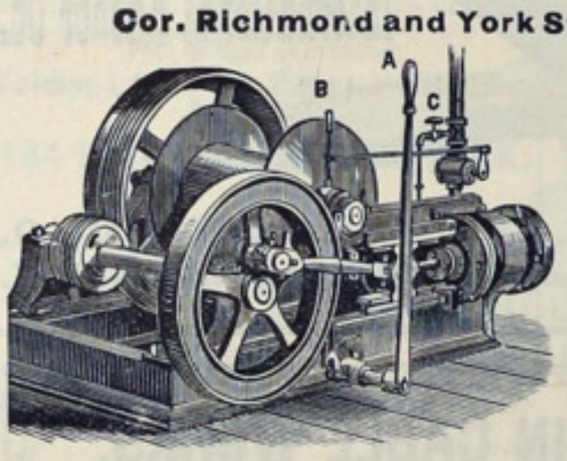

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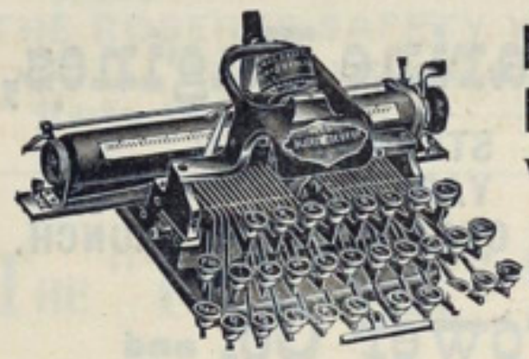

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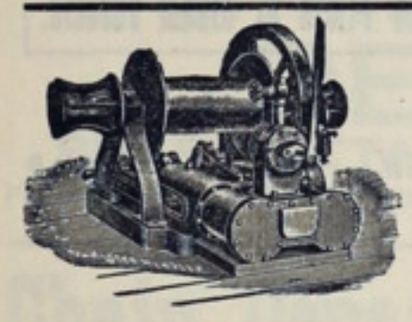

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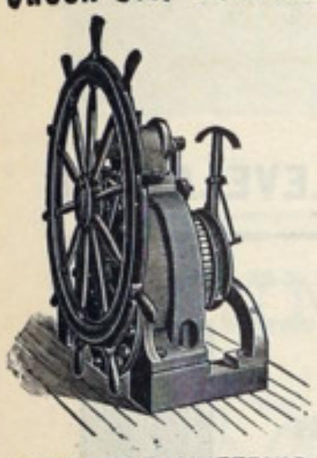

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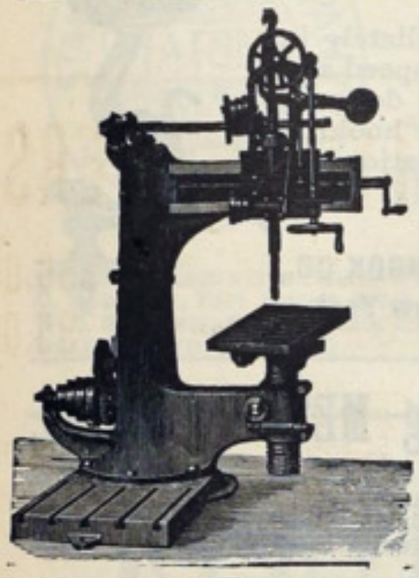

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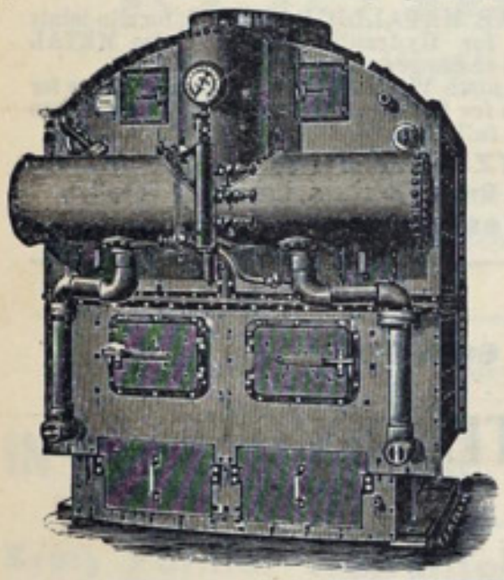

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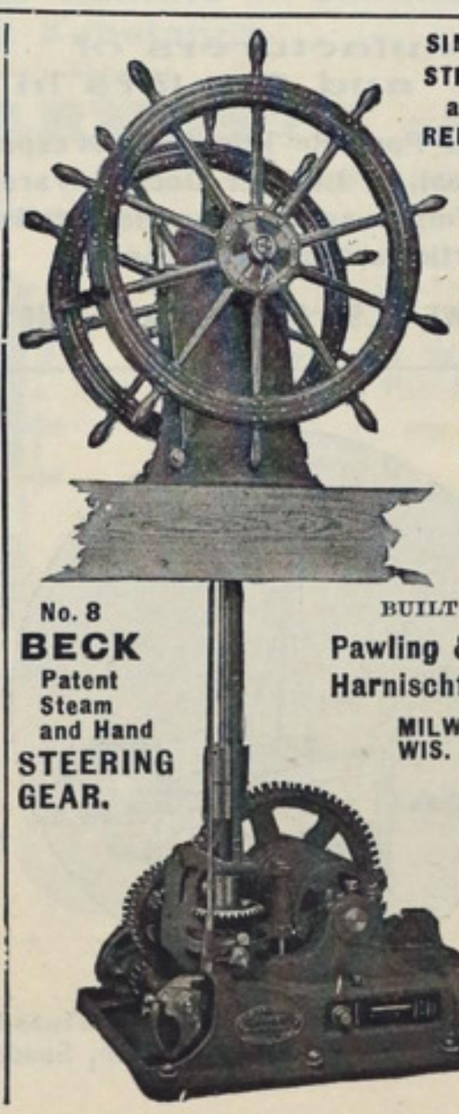

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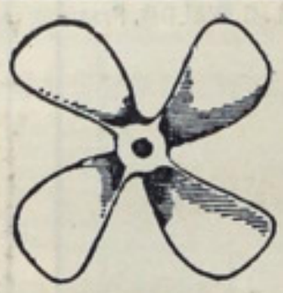

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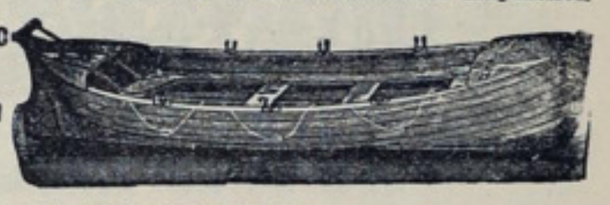

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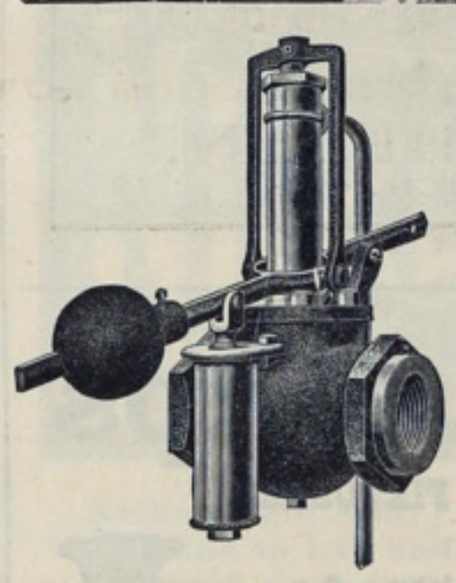

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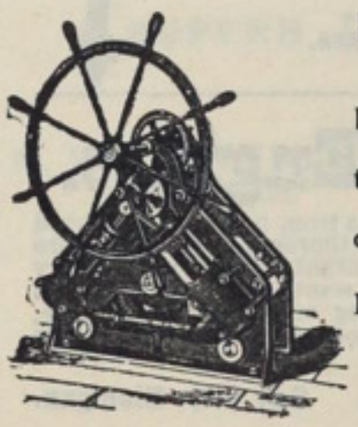

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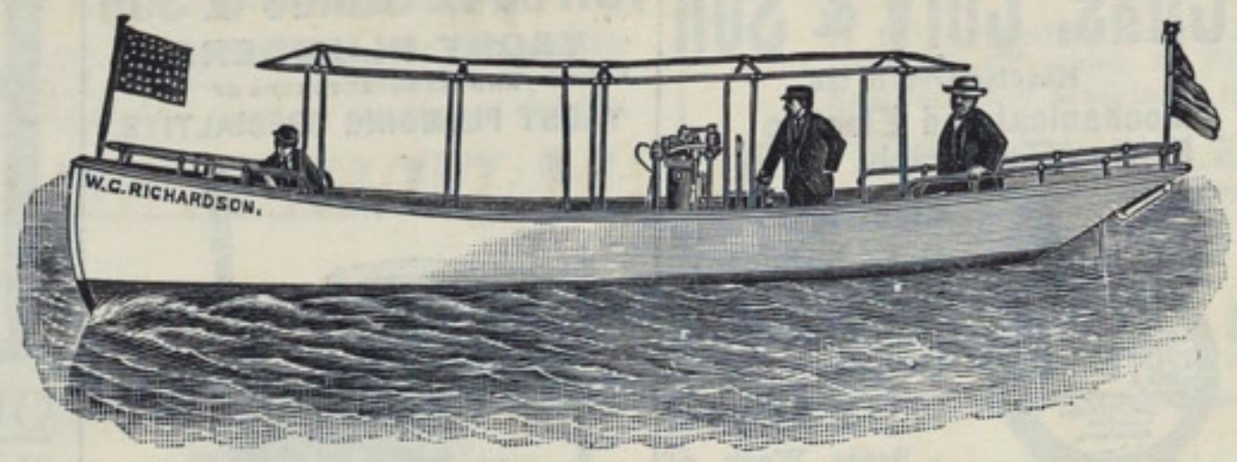

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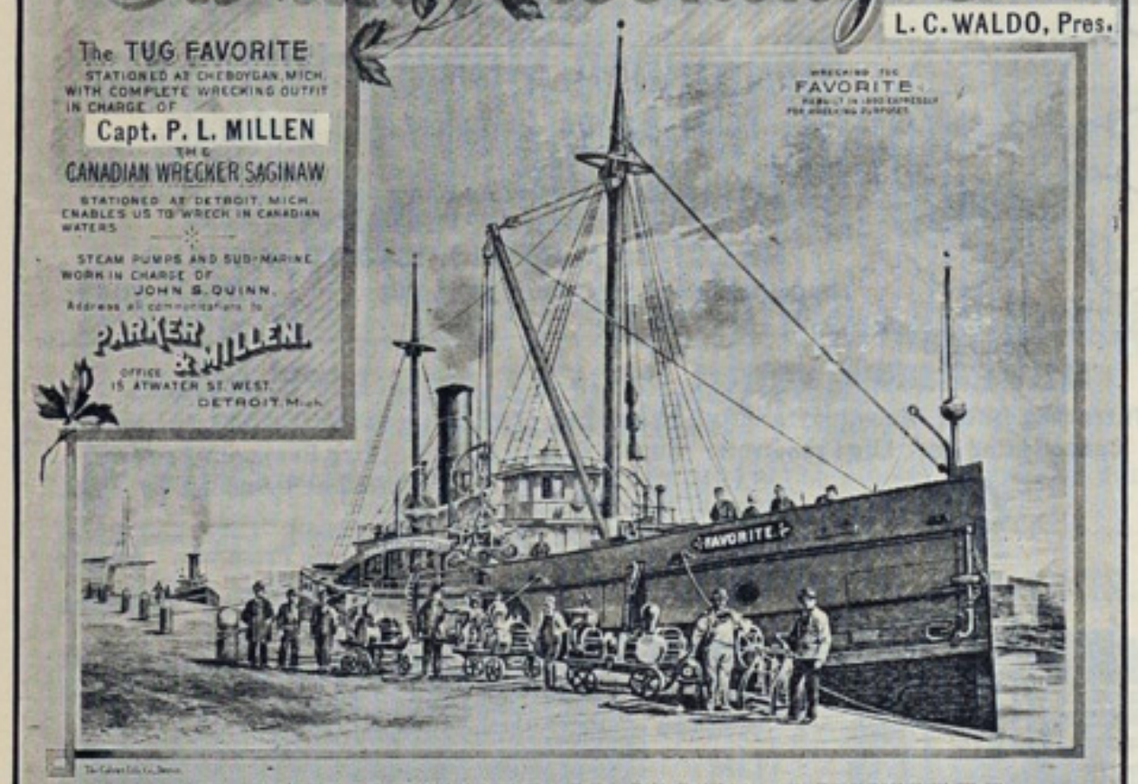

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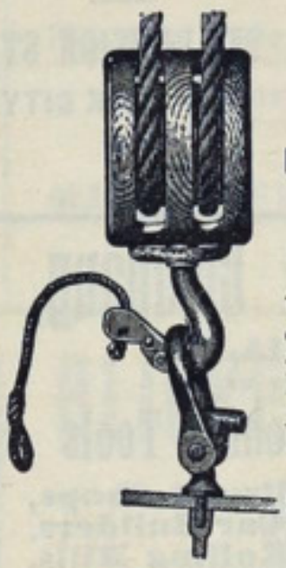

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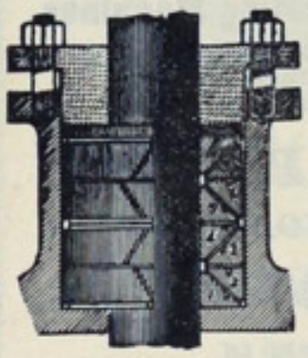

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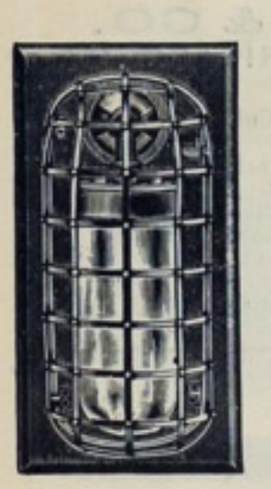

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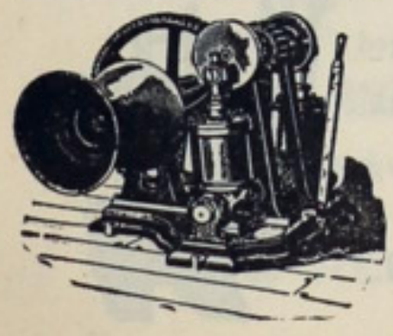

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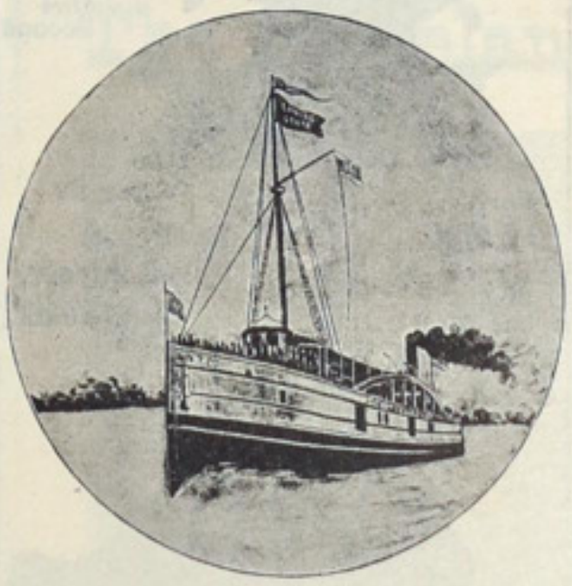

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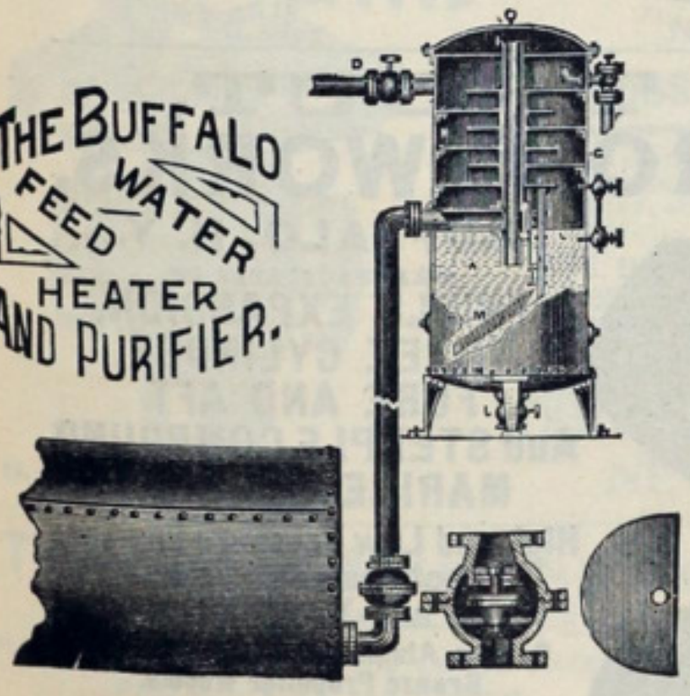

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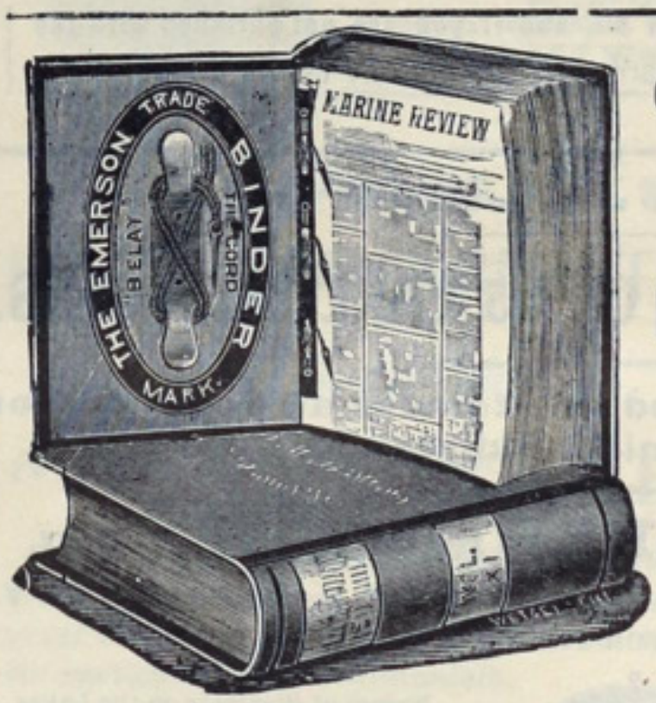

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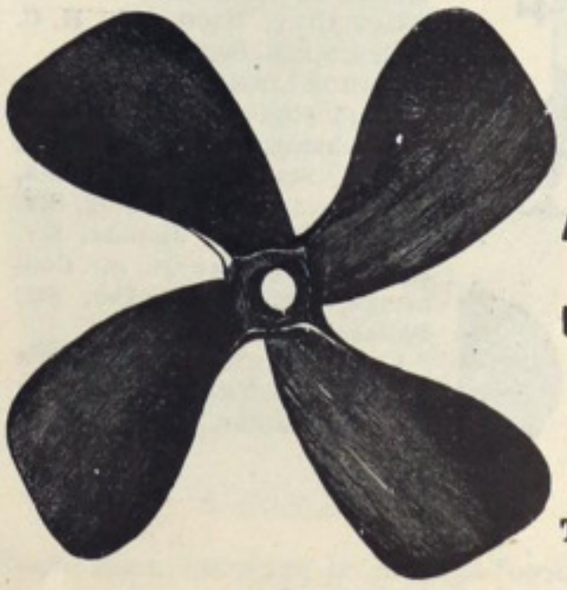

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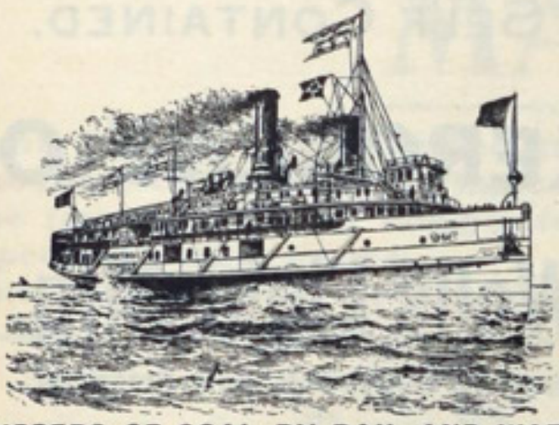

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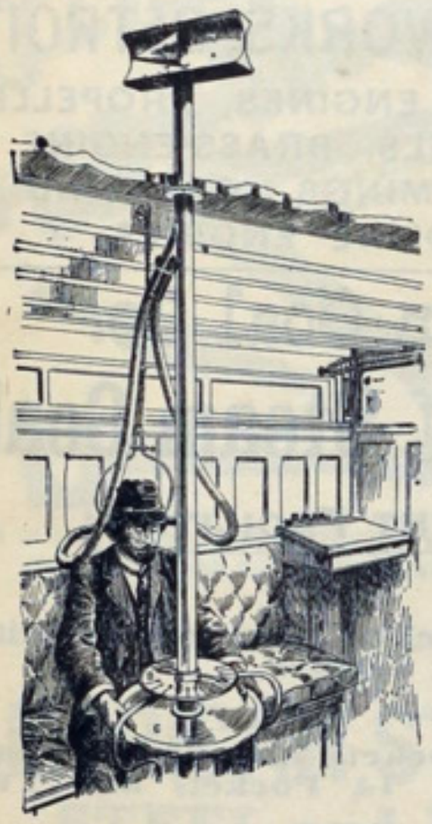

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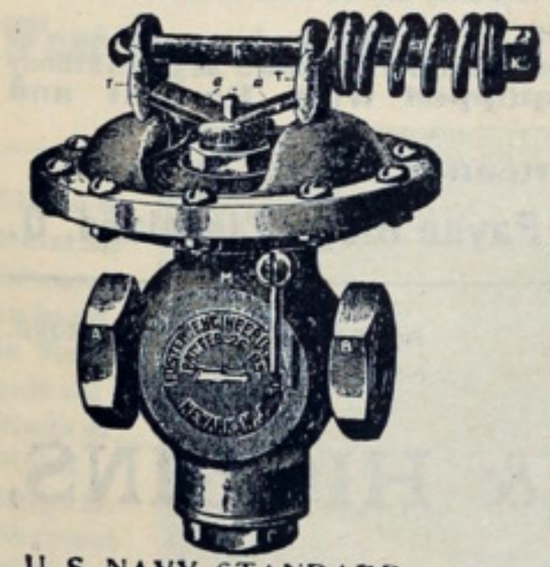

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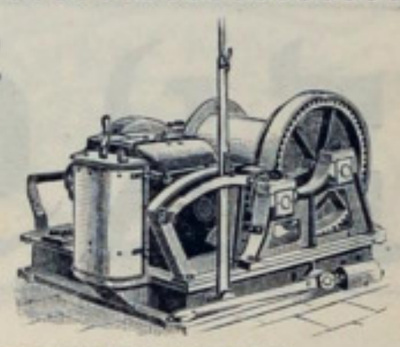

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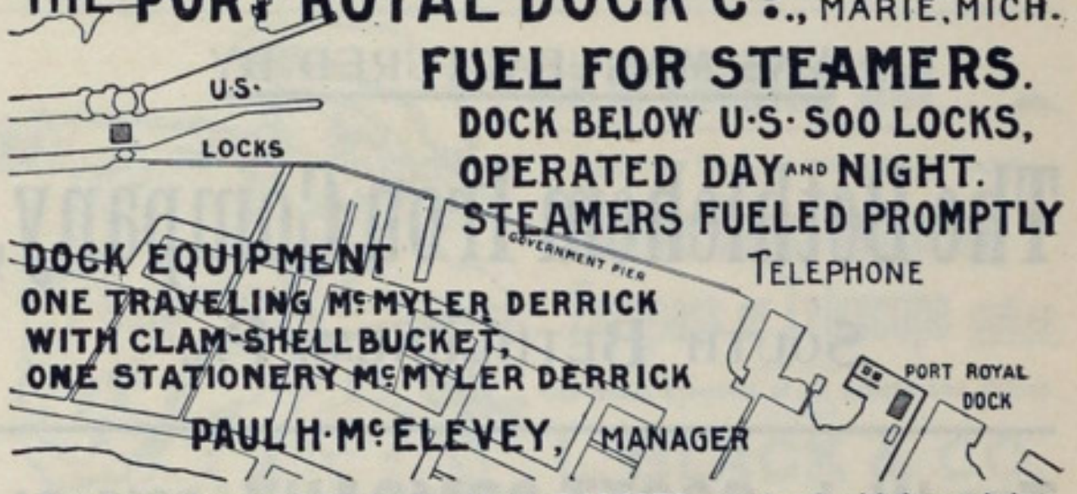

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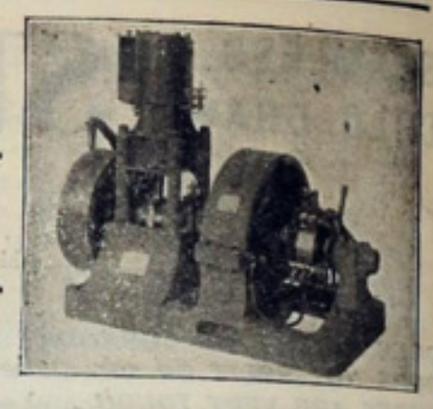

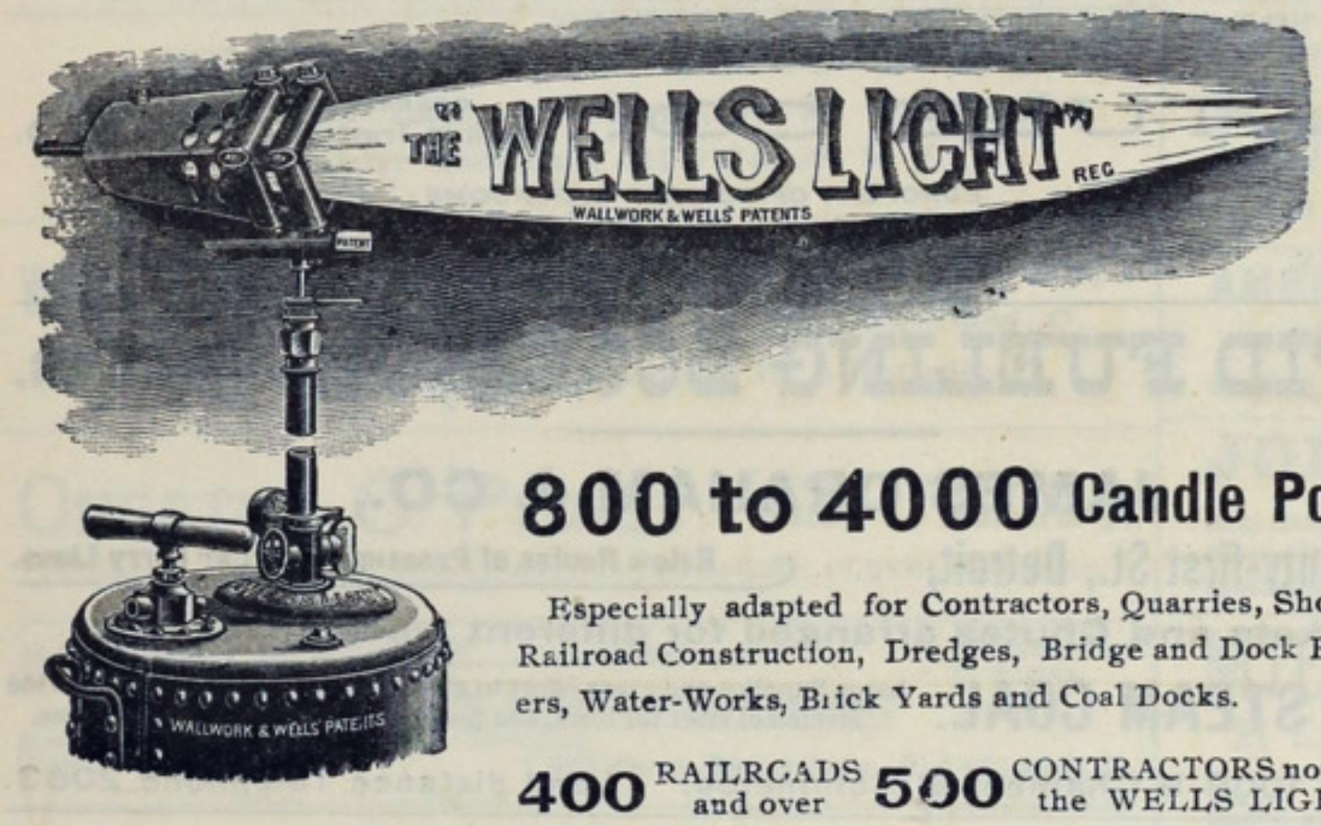

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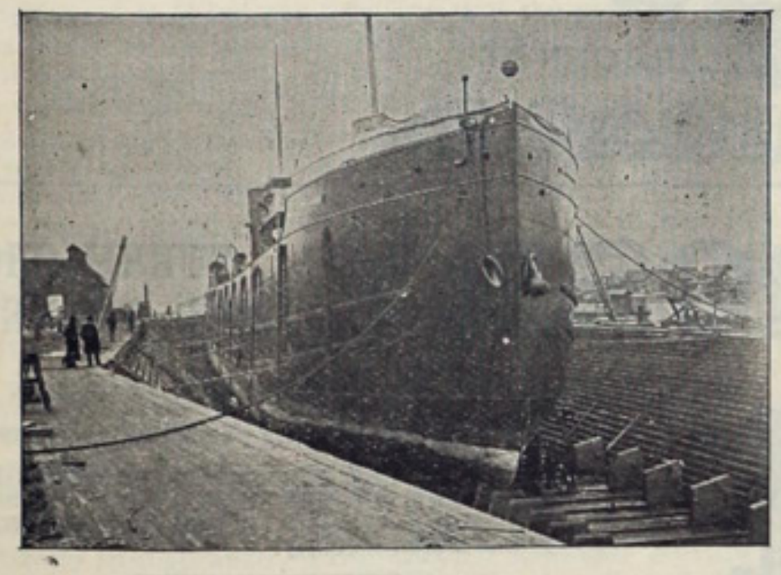

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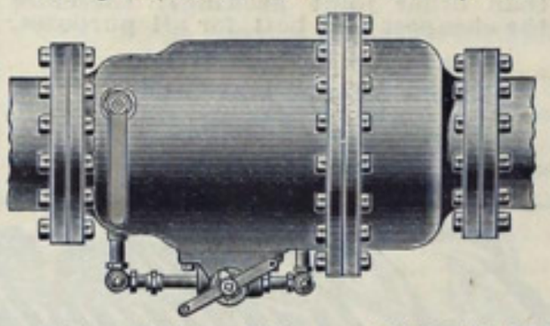

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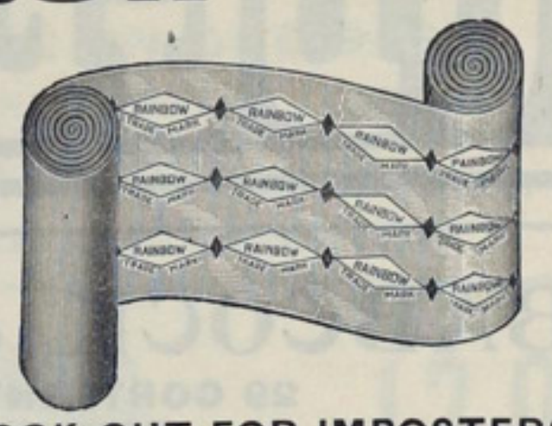

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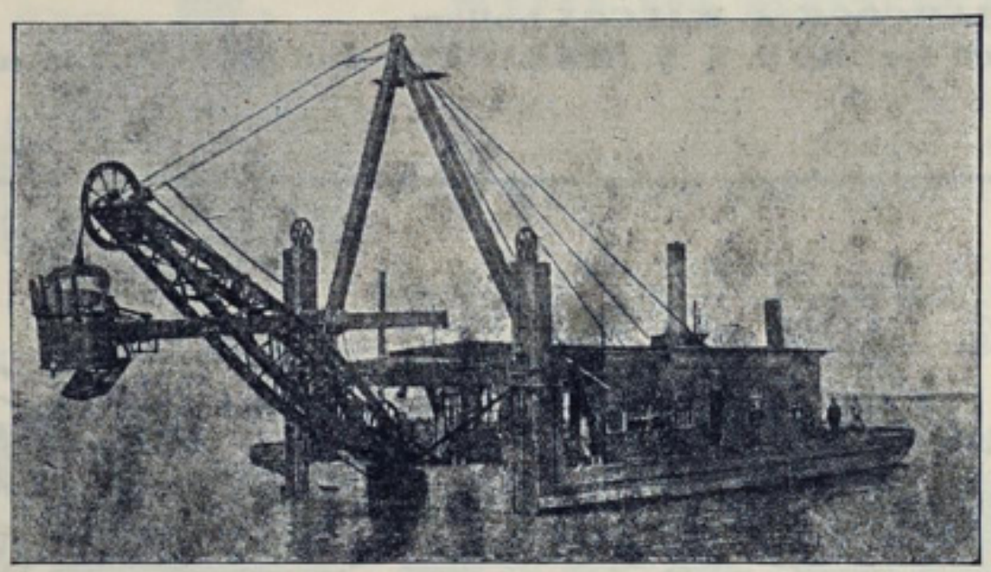

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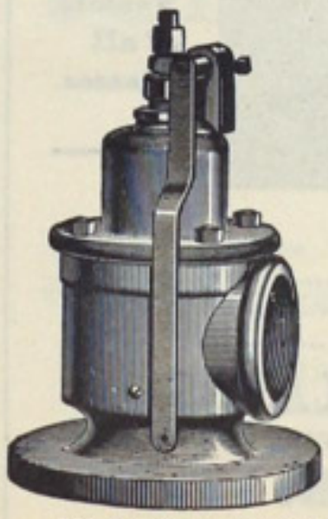

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